Clinical Observations ON SURGICAL CASES.

BY

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MORBUS COXARIUS.

IN consequence of the discussion which occurred in the Medico-Chirurgical Society after the reading of Mr. Croft's paper, I desire to briefly complete the history up to this date of the cases of morbus coxarius in which I removed the joint, and one in which I exsected the trochanter and the adjoining portion of the shaft of the femur. I have already brought these histories fully forward. At the Bath meeting of the British Medical Association I exhibited the pathological specimens of three cases in which excision was performed.

CASE 1.—Removal of a portion of the trochanter, with adjoining part of the shaft of the femur, in a child aged eighteen months. The patient suffered from femoral coxalgia from the time he was about six months old. He is now four years and eight months old. He has this year passed through a severe attack of scarlatina with dropsy, but is at present in perfect health. There is the faintest trace of lameness, and all sign of the original disease, save the incision, has disappeared.

CASE 2.—E. P——, a boy, aged eight years and a half, lived for eight months subsequent to the operation. He died of diarrhœa and amyloid changes, with tympanites. I had for a time strong hopes of the patient's recovery. At least the operation gave great relief from pain, the little patient himself being delighted at the ease which followed.

CASE 3. — T. C——, a boy, aged four, lived eleven months subsequent to the operation. There was greater irritation about the wound and more difficulty in healing than in the last case. He died of the same symptoms. In both cases there was that glazed state of the wound with unhealthy gelatinous-looking granulations; but ultimately the wound had fairly healed in both children; the constitutional symptoms were those which brought about the fatal result. In this case also the child was free from pain after the operation, and was so far comparatively happy.

CASE 4.—H. C——, aged five years and nine months when operated on three years and three months since, sister of the last case, is the most remarkable of the three, as here, in a case of extensive pelvic complication, acetabular and femoral coxalgia, I removed the diseased portion of acetabulum completely, and found the shaft of the femur so diseased that I had to take away a considerable portion of it with the head and epiphyses of the bone. The child passed through the same long eventful history as the other cases. She left the hospital two years and a few months after the operation. I recently exhibited her and her eldest sister, who also suffered from morbus coxarius, and who was saved by aspiration (repeated), to my class at the hospital. She can stand and walk unaided. She goes about in a little car. She is still very delicate-looking; there is great enlargement of the bone; the cicatrix of the wound does not look very healthy. All the abdominal symptoms from which she suffered have disappeared. The sister has recovered without the least lameness. Aspiration and extension saved her, *the third of the same family*, from the fate of the others.

A few practical remarks on morbus coxarius I may be permitted to make. First, as regards the diagnosis of this disease in children. Whether from sacro-iliac disease or from infantile paralysis in its early stage, I consider, so far as physical examination enables us to judge, the method advised by Sayre to be the best and most reliable. The little patient is laid on a blanket spread on a table or on the floor; the pelvis is then placed at a right angle with the vertebral column—this is seen by keeping the line between the anterior superior spinous processes at right angles with the perpendicular line let fall from the umbilicus through the pubes. In the healthy state the body lies quite flat on the plane surface, both popliteal spaces touching the ground. There is no arching of either knee, no arching of the spine; but if there be hip-joint mischief the knee is bent, and on bringing this knee down, so as to get the popliteal space of the affected limb on the ground, the spine becomes immediately sufficiently arched to enable the surgeon to pass his hand underneath the vertebræ; it may be without touching these; this curving of the spine to disappear on again bringing the limb up to the trunk. Not so with the sound limb: there is no pelvic movement; it can be bent almost on the abdomen, whereas the diseased limb will not rise to or beyond a right angle with the pelvis; the pelvis moves with the limb even at this point. The irritation of the psoas and iliacus, and the rigidity of the muscles and of the ligaments of the joint account for these symptoms. Fixation of the pelvis and pressure of the head of the bone in the acetabular cavity will as a rule confirm this diagnosis by the resulting pain; the lengthening in this early stage is entirely apparent—to be proved by an anæsthetic if necessary; already there is pain referable to the joint and aggravated on pressure, as a rule, over the trochanter; frequently there are swelling and increase of temperature over the space directly behind the trochanter; there is the history of an injury, though not necessarily, for the shock which lights up inflammatory action about the hip-joint may, experience teaches us, be so slight as to escape observation, and the histology of the growing bone in the child, with its several lines of junction, explains this proneness to inflammation in a part in which active development is proceeding to so late a period of life. Idiopathic inflammation of the hip-joint, I quite agree with Dr. Sayre, is very rare, though I by no means concur with him that it is impossible, and that the joint during this active period of growth may not, in certain constitutions, under certain predisposing causes, become the seat of a morbid change. While examining we note the negative signs: the absence of pain on pressing the iliac crests; the measurement from the umbilicus to the inner malleolus (in the first stage) not increased; absence of any sign of fulness about the sacro-iliac joint. We confirm our diagnosis by making the child stand, when the characteristic eversion of the foot, the asymmetry of the gluteal folds, the flexion of the knee, and the projection of the body forwards, settle the diagnosis. There is the absence also of the febrile disturbance so common in infantile paralysis, and the sudden accession of symptoms, the manifest paralysis, the history of convulsions it may be, and the complete absence of all the tests above given in the case of acute polio-myelitis. I have frequently demonstrated the striking differences in these commonly mistaken affections from morbus coxarius by this method of Dr. Sayre, and find it always reliable. Nor must we omit the peculiar knee pain, a symptom so distinctive of hip-joint disease in a large proportion of cases.

One word as to a choice of treatment by mechanical means in this disease. I have seen good results by all methods; and as fair as could be expected considering the stages of the affection in which the patients sought surgical relief, whether from extension (properly applied and maintained), vide Howard Marsh's paper "On Morbus Coxarius,"[1] with Bryant's splint, Sayre's splint, or Thomas's splint. My plan of treatment is generally by extension, and then Thomas's splint for moving about. I have many patients whose recovery has been most complete, with not a trace of deformity, treated by extension alone. I have also had many extremely satisfactory results with Thomas's splint.

The cases in which I excised the joint, and detailed above, were some of the worst cases of morbus coxarius I ever treated. But they all came to me when suppuration had occurred, when it was too late to effect any real good by any appliance. My belief is that extension in private practice frequently fails from carelessness in the manner in which it is sustained and neglect on the part of friends. In very young children I believe extension to be a good means of treatment. Nor am I inclined in such cases to despise the long splint. But I must emphatically bear my testimony to the efficacy of the splint devised by Mr. Thomas of Liverpool, affording as it does perfect rest to the joint and immobility, while it enables our patient to move about, and, most important of all adjuncts in treatment, to sustain the general health and spirits during the prolonged rest neces-

[1] Brit. Med. Jour., 1877.

sary in this disease. I wish only to add one remark more—that is, to urge the paramount importance of early aspiration. I have seen such splendid results from aspiration both outside and inside the capsule that I conceive the importance of early recognition of the presence of fluid in the joint or in its neighbourhood cannot be over-estimated. Such a case I have in hospital at the present moment. A girl admitted with the unfortunate complication of a carious first phalanx of the great toe of the left foot (removed antiseptically) and morbus coxarius (femoral) of the right joint. She is now quite recovered. The treatment was aspiration, long splint, and extension. There is no trace of lameness.

EXCISION OF THE MALLEOLI AND ENTIRE TARSUS FOR BRODIE'S DEGENERATION OF THE ANKLE-JOINT; RECOVERY OF USEFUL FOOT.

In January, 1879, I published in THE LANCET a case, that I subsequently exhibited at the meeting of the British Medical Association in Cork, in which this operation was performed. I may briefly restate the particulars of the case, as I desire now to place its termination on record. The girl was admitted in September, 1877, to the Women and Children's Hospital, after prolonged treatment outside. She then suffered from severe chorea. She had the peculiar indolent, semi-elastic swelling of Brodie's disease, involving the entire ankle-joint, and giving it a characteristic globular look, accompanied by the "constant, dull, wearing, gnawing pain," though there was little pain on movement of the joint, or on manipulation.

FIG. 1.

(Taken over one year since.)

I put off the operation of excision, the chorea being so severe. She was taken from the hospital towards the end of 1877. In March, 1878, her parents brought her again, anxious now to have excision performed, which they would not before consent to. I agreed, conditionally, that amputation should be at once carried out if it was found impossible to save the foot. Amputation had been insisted on in another hospital in the meantime, and refused by the parents. The joint was now red and greatly swollen, with a deep sinus on its outer side. The father of the child did not come on the day of the operation, as he had engaged to do, or I should certainly have amputated the foot, so extensively diseased did I find all the structures. The malleoli were sawn off, the os calcis was carefully dissected out, and the remaining bones removed with gouge, forceps, and knife. No tendon was cut; no vessel twisted or ligatured; the periosteum, as far as it could be, was preserved. The operation was performed antiseptically, and all through, until the wound healed, antiseptic precautions were taken. The temperature and pulse remained normal after this operation. When I published the case in 1879 there were the remains of a sinus, and then she had not used the foot. I am happy to say that she can now do so. I exhibited her, not long since, at the local branch of the British Medical Association. She now walks well. There appears to be new osseous growth; the situation of the tarsus is occupied by a solid mass. She has complete control over the toes, and a fair movement exists in the present ankle-joint. This is the most extraordinary example of recuperation of bone I have ever seen. It but serves to prove our power to save a foot by exsection of the tarsal bones in cases in which some few years since a Syme's or Chopart's operation would have been performed.

[OPERATIONS UNDER ANTISEPTIC PRECAUTIONS.]

Three cases of removal of the os calcis, the periosteum being preserved, have recovered with little deformity in the last few years under my care (antiseptically). Regarding the antiseptic method of treating wounds, in March, 1876, I performed my first complete antiseptic operation under the spray. It was the first antiseptic operation done in this city with all Mr. Lister's precautions—viz., Syme's amputation for long existing strumous disease in the tarsus, the entire of which was diseased. The late Dr. Gregg of Cork assisted me; I had a perfect result, and complete union of wound without a drop of pus. As I expressed the opinion before operation that it probably would, disease recurred in the tibia, and I subsequently performed a Carden's operation about the middle third of the leg. The patient is now in good health and walking about by the aid of an artificial leg. The case is interesting from two points of view. She had old contracted and cicatrised cavities in one lung, the result of tubercle, and had in the face, thigh, and leg old cicatricial scars, the consequence of strumous osteitis (femur, tibia, and lachrymal bones), yet she has made a capital recovery, though for some twelve years before this operation she had not put her foot under her, an opinion unfavourable to interference being advanced in consequence of the lung complication. Also, it was my starting-point in antiseptic operations.

From that day to the present, every serious operation I have performed has been done antiseptically. This includes most of the formidable surgical procedures—amputations, resections, tumours, &c. Besides, I speak from the experience of the operations in which I have assisted my colleagues at the Women's Hospital and in the South Infirmary. Briefly, that experience teaches me that under the antiseptic system the hospital ward of the present offers a marked contrast to that of the past. In cleanliness, in purity of atmosphere, in absence of erysipelas and foul discharges, the ward of to-day would not be recognised as that of ten years ago, not to speak of the saving of pain to the patients in the avoidance of the old dressings, and all the attendant ills that followed on free suppuration.

If I am asked, Does not the antiseptic method frequently fail to asepticise a wound? I say not "frequently," but "occasionally;" and I have almost never known that occasion in which, if we retrace our steps and review everything done from the time the patient has been laid on the operation table until the first sign of failure showed itself, we might not find the cause in some fault in the perfection of the method: at one time it has been a sponge, at another an instrument, perhaps a stoppage in the midst of the operation of the spray; or want of care in the handling or in the previous preparations of the hands of the assistants or operator, or some carelessness or mishap in the dressing of the wound. Of all these immediate causes of failure, I believe sponges not properly purified before use to be the most fertile. I direct all those that have been used to be boiled, then soaked in a sulphurous acid solution, and finally allowed to rest in carbolic solution (1 to 20) the night before the operation. The next most potent cause of miscarriage in the process I believe to be want of proper care on the part of the assistants regarding their hands, and especially the nails. And, thirdly, the thoughtlessness with which exposed instruments are given to the operator, especially in long operations, and the neglect of cleansing these, and subsequently the carelessness in dressings, the tendency to hurry over them when dresser or surgeon is pressed for time, the sponges used in the wards, the failure of the spray in dressing, while the wound may be in close proximity to some foul discharge or ulcer or other infecting matter in an adjacent part. In these, and, perhaps, in other accidents, we have, I contend, the "occasional" cause of failure. But, taking it all in all, as a practical surgeon, I desire to express my thorough reliance on the antiseptic method of treating wounds. I think in no class of wounds is the benefit of antiseptic surgery more manifest than in severe compound fractures, especially in the neighbourhood

or running into joints. Many years since I used the carbolic putty and shellac dressing of Mr. Lister, with happy results, in these injuries. From time to time I have seen the most formidable injuries of joints, with laceration of the soft parts and protrusion of bone ends, which, in my student days, would unquestionably have been doomed to excision or amputation, recover without a bad symptom and with useful joints, treated by the antiseptic plan; and in no joint is this more strongly exemplified than the ankle. It has been my lot to see within the past few years some terrible injuries to the ankle-joint, with protrusion of the malleoli, where one of the protruding bone-ends had to be removed to remedy the compound dislocation, with or without fracture, in which, with careful carrying out of the antiseptic method, the recovery with a useful joint has been marvellous. Truly, if the antiseptic method did nothing else than to place conservative surgery on a new basis, no matter to what we attribute the result, be it to greater care, greater cleanliness, greater anxiety to save limbs, greater boldness in operating, less fear of results, greater experience in the saving of seemingly hopeless cases, Mr. Lister has given to modern surgery a new phase and a new existence.

(To be continued.)

ON HOSPITALS:

THEIR MANAGEMENT, CONSTRUCTION, AND ARRANGEMENTS IN RELATION TO THE SUCCESSFUL TREATMENT OF DISEASE, WITH REMARKS ON THE ORGANISATION OF MEDICAL RELIEF IN THE METROPOLIS.

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MENILMONTANT.

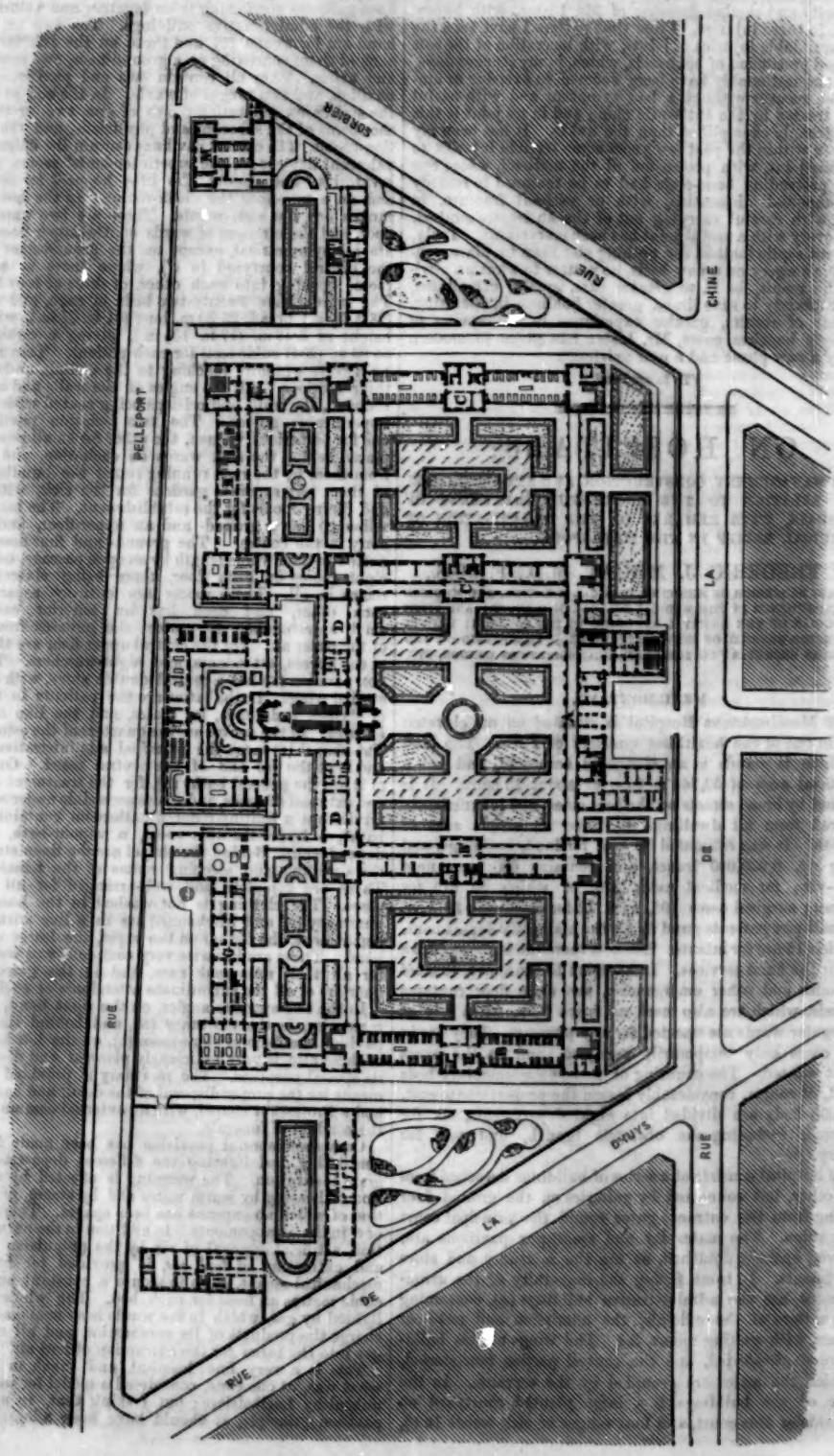
THE Menilmontant Hospital is situated on an elevated ridge in one of the healthiest quarters of Paris. The land on which it stands is an elongated trapezoid, and has a superficial area of 52,764 metres, or about 13 acres. It is bounded by broad streets on the four sides, and is sufficiently removed from all dwellings to have an ample zone of aeration. It was estimated to cost for land, buildings, and fitting up, 9,939,000 francs, and contains 635 permanent beds—viz., for medical cases 376, of which 20 are for children; surgical cases 195, with 12 for children; 32 beds for small-pox patients; and 32 for the maternity department, of which 16 are for infants. The cost therefore is about £626 a bed for the fixed services. In addition to the above, to meet epidemics and other emergencies, the attic floor contains 192 beds, which are also used as spare beds, when any of the regular wards are vacated for any purpose. They are in such cases only temporarily occupied, and to the exact extent wanted. The counting of these supplementary beds would, of course, considerably lessen the proportionate cost. The 635 beds are divided into eight departments, six for medicine, including the obstetric branch, and two for surgery.

The hospital consists of a series of buildings detached from each other, but connected by galleries on the ground floor running from the entrance gates round the principal court and garden. The maternity and small-pox pavilions are, however, entirely detached, as are the mortuary and store departments. In front, facing the mayoralty of the arrondissement, are the administrative buildings (A), containing the quarters of the officials, the admission and out-door services, with waiting-rooms, &c. The wings of this building are single-storied, and the central portion four-storied, of which the attics are occupied by the servants. In the centre of the buildings is a large planted courtyard on each side of this court, and four ranges of sick wards (B C), grouped in couples, with gardens between each group, and open galleries connecting them together and communicating with the administrative buildings. The two on the right hand are for women (C), and those on the left for men (B), each of them consisting of a ground-floor, two upper stories, and attics. They all contain two end pavilions, a central pavilion, and two ranges of wards. In the end pavilions are the staircases, separation-rooms of one, two, or three beds, the rooms of the surgeons and physicians, and the examination-rooms. The central pavilions contain the offices, the convalescent day-rooms, the superintendents' rooms, the baths, lavatories, and closets, the lifts, hoppers for dirty linen, and on a mid-floor the cloak-rooms. In the body of these ranges are the sick wards. There are two wards on each floor, and three ranges of wards on the upper floors. These are all symmetrical, except on the ground-floor bordering the central courtyard (B' C'), where there is a series of rooms opening into each other, of three or four beds each. The wards have twenty-two beds in each, and are 8·80 m. (28 ft. 2½ in.) broad, 25·80 m. long (84 ft. 7½ in.), with a mean height of 5·45 m. (17 ft. 10½ in.), giving a cubic space of 54·96 m. (2041 cubic feet) for each patient. They are lighted by twelve windows reaching to the ceiling, and opening in three sections. All the angles of the walls and ceilings are rounded, the walls and ceilings being coated with varnished impermeable stucco. The two isolation pavilions (I K), one for parturient women, the other for small-pox cases, are placed behind the sick wards on each side, and separated from them by the road running round the buildings. Each of them has separate gardens for the sick, with sleeping and dining-rooms for the establishment. The maternity pavilion (I) has a ground- and an upper-floor, and a second story in the centre. The ground- and first-floors are connected in their whole length by an open passage, on which are eight rooms on each floor, there being sixteen separate rooms in all. These rooms are entirely separated from each other, and each has an anterior cabinet and small antechamber, to protect the inmates from currents of the outer air. On the central upper floor are the quarters of the nurses, attendants, and night-watchers. The small-pox pavilion (K) has a central double story, with two single-storied wings. In the latter are the patients in two wards, of sixteen beds each, for males, and the like number for females. In the centre are the quarters of the establishment. The chapel (E) faces the principal administrative building, and is at the far end of the central court. On each side of it are the general baths (D), for the treatment of internal and external diseases, and all are accessible under cover. Each service has a waiting-room, a bath-room containing twenty baths, a hydro-therapic room, a vapour-bath, and other dependencies. Behind the chapel are the linen store (F), and the dwelling and sleeping rooms of the female servants. These are complete and well-arranged for all their purposes. The clothing is not washed in the hospital. The pharmacy (H) and kitchen (G) are in a line with the linen department, the former on the right, the latter on the left hand. These are likewise very complete and well-arranged for all their numerous uses, and in the garrets are the quarters of all the subordinate attendants of each.

In the two opposite angles, on the right hand, behind the maternity, is the mortuary (N), and behind the small-pox pavilion the general store-room (L), on the left hand. Each of these also is very judiciously planned and distributed for its special purposes. The mortuary is provided with every means for the proper disposal of the dead, and has a Catholic and a Protestant chapel, with an external communication for the conduct of funerals.

Costly and special provision has been made for heating, ventilating, and lighting the different departments of this great institution. The warming is effected by a combination of heating by warm water and by steam, on the perfection of which no expense has been spared. There is nothing new in the arrangements. In addition to the natural ventilation, artificial removal of air by the propulsion of pure air and extraction of foul air, is provided for by ingenious mechanical means, so as to secure a constant supply of 100 cubic metres an hour for each bed. The whole hospital is lighted by gas, which in the wards is so managed as to discharge the products of its combustion and all unconsumed gas into the tubes for the extraction of foul air.

This is a very fine hospital, and much in advance of what was, at one time, considered a model for imitation, the unhealthy Lariboisière; but I think that, in adopting the pavilion principle, it should have been adopted in its in-



GENERAL PLAN OF THE MENILMONTANT HOSPITAL.

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tegrity, and four-storied buildings with in-communications should have been avoided. On the cellar floor is a very perfect tramway arrangement, running round the whole of the buildings, and connected at intervals with staircases and lifts. I fear that this may become a source of danger in the future. The placing of additional patients in the attics in times of epidemic or other pressure, does not appear to me to be a judicious proceeding; and the intercalation of supernumerary beds (*branchards*, of which I saw two), in the ordinary sick wards, is an unmixed evil. The great ventilating chimney may also act prejudicially on the neighbouring dwellings, as similar structures are supposed to have done elsewhere in Paris.

The hospital has been too short a time in existence, to admit of any opinion being formed as to its superiority to the other institutions of the same class and character in the same city. I ought to have mentioned that it is supplied with a well-arranged series of railways and lifts, and has a complete system of electric bells throughout. Suitable mechanical arrangements for weighing and distributing fuel, and lightning conductors, have also been provided.

(To be continued.)

A NEW LINE OF RESEARCH BEARING ON THE PHYSIOLOGY OF SUGAR IN THE ANIMAL SYSTEM.[1]

BY F. W. PAVY, M.D., F.R.S.

TWENTY-THREE years ago I presented a communication to the Royal Society, entitled "On the alleged Sugar-forming Function of the Liver."

Four years previously—viz., in 1854, whilst conducting experiments directed towards determining the manner in which the sugar presumed, under the glycogenic doctrine, to escape from the liver was destroyed (as it was then believed to be) in the lungs, I discovered that what had been taken as representing the natural condition of the liver, and of the blood escaping from it in relation to sugar, was founded upon a fallacious inference. By those who have only been acquainted with what, in recent times, has been recognised as constituting the state existing, the original position in which the matter stood will hardly be fully comprehended. The strongly saccharine state in which the liver and the blood of the hepatic veins are found shortly after death was looked upon, without any question being raised about it, as representing the state existing during life. Without the slightest prior conception that such was likely to be the case, I found, first, that the blood between the liver and the lungs was not during life in the condition that had been supposed, and, next, that what I discovered for the blood applied also to the liver. The evidence which presented itself led me, as is known, to dispute the validity of the glycogenic theory, and the additional information which I have since from time to time obtained has materially strengthened the position I took. To my own mind the conditions that we have to deal with, looked at in their entirety, are totally irreconcilable with the glycogenic theory; but I know that the difficulty which has existed in accounting for the disposal of the glycogenic matter of Bernard encountered in the liver has stood in the way of a general adoption of my views. This subject, however, I am now prepared to approach and consider.

When the glycogenic matter was discovered, it was described as undergoing transformation into sugar immediately it was brought into contact with blood. Bernard said of it: "Cette dernière [matière glycogène du foie] est tellement alterable qu'elle ne peut pas exister dans le sang sans être immédiatement changée en sucre, de sorte qu'elle ne peut jamais sortir du foie que sous cet état." This impression has governed the position left open to us to take in relation to the disposal of the material, and rendered it necessary to look for some undiscovered mode of transformation of it within the liver under the presumption that it does not reach the circulating system as sugar.

We have here a fundamental point to deal with; and, as in my original communication to the Society, I had to commence by clearing the ground of error, so now it happens that I have to proceed in a similar way in relation to the point in question. I have results to communicate which appear to me to place us in a new position, but before these are considered it is requisite that the knowledge upon which we start should be set right.

Whatever may be the future of the glycogenic theory, the substance which Bernard was the first to recognise will stand as it exists now. The name "glycogen" was applied to it when certainly an erroneous notion existed regarding the condition of the liver and of the blood in relation to sugar. Its presumed destination suggested the application of the term. I have hitherto objected to its employment, and I have stronger grounds for doing so now. To avoid the incorporation of theory, I have spoken, in my previous writings, of the body in question under the provisional name of "amyloid substance." Something more definite than this is for final purposes required, and it appears to me that it would be a fitting tribute to the memory of its discoverer to call it "Bernardin." Such a name will be at once suggestive of the substance to which it is intended to refer, and will form an imperishable memorial, which, whatever doctrine may prevail, will serve to identify the person, to whom all must admit physiological science owes so much, with the subject which formed the most prominent field of his labours.

Entering now upon the results which it is the object of this communication to make known, I will begin with the experiments bearing on the effect of bringing Bernardin (glycogen) into contact with blood. In these experiments the Bernardin was dissolved in a small quantity of water, and mixed with the blood in a defibrinated state. Sheep's blood was the kind of blood used. The product was placed in an oven specially constructed for such a purpose, and maintained for half an hour at a temperature between 100° and 110° F. It was then subjected to examination, and the quantity of sugar present ascertained by the ammoniated cupric test.[2]

In some instances the process of preparation for titration with the test consisted of extraction with alcohol, and in others of precipitation of the albuminous and colouring matters by heat with the aid of sulphate of soda. Bernardin (glycogen) prepared in different ways was used, and no differences in the results was perceived. Some of the specimens employed were obtained by simple extraction from the liver with water and precipitation with spirit. The actual condition of the specimen used as regards purity was ascertained by subjection to the converting action of sulphuric acid and heat, and the estimation of the glucose formed. In this way the information was obtained for supplying the figures found in the subjoined table representing the Bernardin used, expressed in its equivalent of glucose. The figures representing the sugar produced were obtained by deducting from the sugar found in the product of experiment the figures yielded by a specimen of the blood alone purposely exposed to parallel conditions.

[1] A paper read at the Royal Society, June 9th, 1881.

[2] The ammoniated cupric test referred to was described by me in communications to the Royal Society, published in vol. xxviii., p. 260, and vol. xxix., p. 272, of the Proceedings. Since bringing it under the notice of the Society, I have had a very large experience with it, and am thus enabled to speak in definite and confident terms about it. Its facility of application, delicacy, and precision place us in a most advantageous position in relation to the quantitative determination of sugar. An important feature also belonging to it is that its action is not interfered with by the presence of nitrogenous matter, as is the case with the ordinary cupric solution. Under my supervision it has been used, I am quite within bounds in saying, some thousands of times; and if an experience of this kind will justify an expression of opinion, I may state that I am satisfied it will be found invaluable alike to the physiologist, the chemist, and the physician. The test is prepared by adding ammonia to a cupro-potassic solution, for which the following is the formula:—

Cupric sulphate	24·65 grms.
Potassio-sodic tartrate (Rochelle salt)	170 "
Pot-ash	170 "
Water	to 1 litre.

For the ammoniated test 120 cub. centims. of the above solution are mixed with 300 centims. of strong ammonia (sp. gr. 0·880), and water added to a litre. 20 cub. centims. of this ammoniated cupric liquid are decolorised by 0·010 grm. of glucose. The liquid to be examined is allowed to drop from a burette into a suspended flask containing the test, which is kept briskly boiling till decoloration has been attained. The reduction being attended with decolouration without precipitation, there is nothing to obscure the determination of the moment when the precise point wanted has been reached.

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Bernardin (Glycogen) added to Blood and exposed for half an hour to a temperature of 100° to 110° F.

—	Amount of [illegible] used.	Amount of Sugar reducible from the Bernardin mixed with the Blood.	Sugar produced.
	Cub. Centims.	Grm.	Grm.
Experiment 1	60	0·267	0·007
,, 2	60	0·267	0·018
,, 3	30	0·535	0·005
,, 4	30	0·535	0·005
,, 5	25	0·232	0·009
,, 6	50	0·432	0·014
,, 7	50	0·288	0·021
,, 8	50	0·144	0·007
,, 9	50	0·294	0·009
,, 10	50	0·147	0·009
,, 11	50	0·144	0·036
,, 12	50	0·144	0·033
,, 13	25	0·144	0·007
,, 14	50	0·144	0·009
,, 15	25	0·144	0·000
,, 16	25	0·112	0·003
,, 17	25	0·112	0·002

The total of these results is that Bernardin (glycogen), equivalent to 4·085 grms. of glucose, was added to 705 cub. centims. of blood, and that the amount of sugar produced was 0·194 grm. I do not know the reason of the figures standing so much higher in Experiments 11 and 12 than in any of the others. The two were conducted together and with the same specimen of blood, which was only used for these experiments.

The amount of sugar produced is too insignificant to be susceptible of recognition by ordinary testing. Half a gramme of a sample of Bernardin (glycogen), standing equivalent to 0·367 grm. of glucose, was mixed with 25 cub. centims. of blood, and exposed for half an hour to 100° F. Prepared for testing with heat and sodic sulphate in the ordinary way, the product gave with the cupro-potassic test no visible indication of the production of sugar.

The point shown by these experiments is that Bernardin (glycogen) may be brought into contact with blood and kept in contact for some time at a temperature equal to that of the living body without undergoing conversion to more than what may be spoken of as quite an insignificant extent into sugar. Not only do the quantitative determinations of sugar prove this, but there is the further conclusive fact that the Bernardin is subsequently recoverable from the blood. The ground is therefore cleared in such a manner as to show that there is nothing inconsistent with Bernardin existing in and constituting a natural element of the blood.

Having established this foundation, I will now proceed to deal with the blood as it exists in the body, investigated in relation to Bernardin.

It is only when light begins to dawn upon a subject that the path of investigation, which is calculated to lead to an extension of knowledge, appears in view. Until a definite purpose to work up to, suggested by something or other which has been extricated from the domain of darkness is attained, engagement in the laboratory operations of research is unsatisfactory employment. For some time I persevered in conducting general analytical examinations of the blood and liver, hoping that through the results obtained light might appear in some direction or other, but they failed to lead to any useful acquirement of knowledge. Later on, from information supplied by a collateral source of inquiry, I was induced to conduct examinations by another method of procedure, which was not likely to have been hit upon accidentally, and through these a new field has been opened out, which, if I judge rightly, has given signs of proving productive of an important addition to our knowledge.

It would scarcely occur to a person, unless forced upon him by what he had otherwise observed, to think it necessary in relation to the matter under consideration to preserve the coagulated residue of blood and submit it to examination. It will be seen, however, from what has to be stated, that besides a certain amount of glucose which may be removed by alcohol, blood contains a principle which agrees with Bernardin (glycogen) in being insoluble in alcohol, and convertible into glucose by exposure to the influence of sulphuric acid and heat. Some of this principle is dissolved out by water under aqueous extraction, but the remainder clings to the coagulated residue, which has to be subjected to special treatment in order that it may be brought into view. Thus, unless a special mode of examination is adopted, which is not likely to suggest itself accidentally to the mind, the principle in question incorporated with the coagulated residue will remain concealed from observation.

In conducting a full or detailed examination of blood the first step to be undertaken is the separation of the glucose which it contains for quantitative examination. Let 25 to 50 cub. centims. of defibrinated blood be poured into five or six times their volume of spirit. The glucose being soluble in alcohol is susceptible of extraction by this liquid. It is held, however, more tenaciously by the coagulated matter than might be expected, and hence to effect a complete removal several washings and pressings are required. At first I was deceived through not fully realising this circumstance, and thought I had obtained evidence of the presence of glucose, of a maltose-like body giving a greater cupric oxide reducing action after being subjected to the converting influence of sulphuric acid and heat than before, and of a substance agreeing with Bernardin (glycogen) in blood. The first I found in the alcoholic extract, the second in the aqueous extract, and the third in the solid residue. The maltose-like body, I have since ascertained, has no real existence. The cupric oxide reducing action in the aqueous extract noticeable before subjection to sulphuric acid and heat, arose from the glucose not having been thoroughly extracted in the alcoholic process, and the increased reducing action after sulphuric acid and heat was due to the presence, i.e. addition to the glucose referred to, of a little Bernardin (glycogen) dissolved out from the residue by the water.

The plan that I adopt for effecting the complete removal of the glucose is as follows: The defibrinated blood which has been taken for examination is poured into the requisite quantity of spirit, and the two are well stirred together. I am under the impression that it is advantageous for the coagulum to be allowed to remain in contact with the spirit till the following day. After being boiled by the heat of the water bath, the alcohol is strained off through a piece of linen material which has been cleansed so as to be free from dressing. Washing with alcohol is performed, and the coagulum in the linen used is subjected to forcible squeezing in a suitable sized press. The residue, which by this process is converted into a dry cake, is pulverised in a mortar, mixed with fresh spirit, boiled over the water-bath, and again strained and pressed. The process is repeated once more, and this I find is sufficient. Thus extracted three times there is practically no glucose left in the solid residue, and when an aqueous extract is made it gives no appreciable cupric oxide reducing action before subjection to the influence of sulphuric acid and heat.

Two extractions with alcohol might prove sufficient if carefully made, but it is safer to use three. To give the representations of actual results yielded, 50 cub. centims. of sheep's blood were extracted with alcohol. The first alcoholic extract contained 15 mgrms. of glucose, the second 4, and the third no definite amount. Some sugar from diabetic urine was added to sheep's blood, and 50 cub. centims. taken. The first alcoholic extract was found to contain 144 mgrms. of glucose, the second 9, and the third nothing definite.

To prepare the alcoholic extraction for testing, the mixture of alcoholic liquids obtained is acidified with acetic acid, heated to nearly boiling-point over the water-bath, and then filtered through ordinary filtering-paper. It is now brought down by heat to a small bulk, and treated with an excess of crystals of sulphate of soda, with the view of causing the fatty matter finely dispersed through the liquid to agglomerate so as to be susceptible of removal by filtration. Water is added to the surplus crystals of sulphate of soda, and a hot solution made which is used for washing purposes.

The titration of the product of alcoholic extraction with the ammoniated cupric test gives quantitative results which stand in complete accord with those I obtained by the gravimetric process, which were mentioned in communications published in vol. xxvi., pp. 314 and 346, of the Proceedings of the Royal Society.

For the purpose of ascertaining what kind of sugar is contained in the alcoholic extract, the product of extraction has

been titrated with the ammoniated cupric test *before* and *after* subjection to the converting influence of sulphuric acid and heat. The results have shown that no increased reducing action is given after treatment with sulpuric acid and heat.

The cupric oxide reducing principle, therefore, which is extracted by alcohol from blood, consists of glucose.

(To be concluded.)

ON THE INFLUENCE OF CONSTITUTIONAL DRAINS UPON THE DEVELOPMENT OF CANCER.

BY REGINALD HARRISON, F.R.C.S.,
SURGEON TO THE LIVERPOOL ROYAL INFIRMARY.

IN an address I recently delivered at the Liverpool Medical Institution, I urged the necessity for a still further search into the natural history of cancer as a likely means of adding to the limited resources we at present possess of controlling if not preventing it. There is one aspect of such an inquiry which it appears to me has not hitherto been sufficiently worked out, and that is the influence of what I may call constitutional drains, purulent or otherwise, on its production and reproduction. And though what I may have thought I observed, clinically, regarding this point in its bearing upon malignant disease may be of the nature of coincidences rather than of rules from which deductions are to be drawn, yet the narration of them may elicit from others similar or opposite conclusions, which still will be of value in making our knowledge of the life history of this disease more ample.

The frequent appearance of cancer in women at a time of life coincident with the withdrawal of a discharge has a significance when coupled with somewhat analogous circumstances. Of the considerable number of cases of cancer that have fallen to my lot to see in a town where the opportunities for doing so are ample, I can recall to mind several where, after removal of the local disease had been effected, some independent discharge, such as a sinus or a fistula, accidentally followed, which so long as they existed seemed, as far as I was able to trace the cases, to ward off a recurrence of the malignant disease.

Though the patient in the following case has remained free from a return of the disease for only the comparatively short period of twenty-one months, yet it was just one where there was every reason to believe, from the extent to which the skin was implicated by scirrhous deposits, in addition to other circumstances, that recurrence would probably be rapid. One case is that of Elizabeth O——, aged forty, who was referred to me by Dr. Davidson, and whose breast I removed at the Infirmary on April 8th, 1879. It was necessary to sacrifice a large portion of the skin, so much so that the wound has never completely closed. Beyond this small wound, about the size of an ordinary issue, she has suffered no inconvenience whatever, and there is no appearance, either in the operation wound or elsewhere, of a return of the disease. She has gained flesh in spite of the slight purulent running I have mentioned, and looks robust and well. I have requested her to report herself from time to time, and not to allow the issue to heal. Though the time since the operation is far too short in this case to draw such a conclusion as I could wish, yet if recurrence were to take place almost immediately, I should still maintain, having regard to the nature of the primary disease that was removed, that recurrence had been considerably retarded by the protracted suppuration of a healthy sore. This case happened also to afford me the opportunity of referring to this subject in the course of my clinical teaching.

On October 7th, 1879, I removed the breast of Mrs. W——, a stout lady, for scirrhus, with the assistance of Mr. Byerley and Dr. Craigmile of Seacombe. She also was of such a habit of body that I should not have been surprised to hear that recurrence had taken place within rather less than the average time. In the following month she consulted me for a fistula in ano, which had suddenly appeared, and which I declined to interfere with. Writing to me on Jan. 29th, 1881, nearly sixteen months after the operation, Dr. Craigmile states, "She keeps very well and quite free from anything like a return either in breast or glands. The fistula now and then discharges very little, but gives almost no inconvenience."

Speaking generally, I have observed that when the removal of a cancer has been followed by a prolonged suppuration of the operation wound and its tardy closure, recurrence has been longer delayed than when union has been rapidly effected.

I remember a case occurring in 1860, where, under the late Mr. Long's direction, I removed a scirrhus of the breast by chloride of zinc, which he was then trying in the infirmary. The action of the caustic was so potent as to damage the surface of one of the ribs, and for some years this patient lived with a persistent sinus which at times discharged minute portions of dead bone. With this exception, for seven years I know she was in excellent health, and had no recurrence of the disease. About this time she left for America, and I have lost sight of her.

We must all have seen cases of malignant disease which have first shown themselves, in apparently middle-aged healthy persons without any known constitutional taint, a very short time after the sudden arrest of some long continuing drain, such as that of a fistula, or of bleeding hæmorrhoids. I can recall several. Again, the first appearance of cancer has been frequently observed in persons such as those I have mentioned, immediately after they have exchanged a life of bodily and mental activity for one of comparative indolence and luxury. Some of the most rapid and uncontrollable cases of cancer I have seen under these circumstances. For the most part cancer seems the more frequently to appear in the plethoric and torpid rather than in the spare. That a change of type in the individual who may be suffering from malignant disease is not unfrequently attended with some alteration in the growth has often been noted, and has served to explain instances where a cancer has ceased to show any signs of active progress. I believe that it would not be difficult to show that cancer is on the increase; that it is far more common amongst us now than it was one hundred years ago. If such a statement is correct, what bearing has it upon the advance of civilisation, of which we are disposed to boast?

It has often occurred to me whether our forefathers, who were shrewd observers, if they were not advanced pathologists, in the practising of the regular bloodlettings were quite as unreasonable in their views as to the "humours of the body" as we at the present day are disposed to regard them. Has the use of drains and of setons, after the removal of the obvious signs of cancer, had a sufficient trial? I am disposed to think that it has not, and, further, that there exist grounds for their employment under certain conditions. I am now making use of them; as, however, it is desirable to obtain as much collateral information upon this point as possible, to avoid the employment of treatment which has previously failed to give any encouraging results, I have taken the opportunity, when the attention of the profession has been more than usually directed to this subject, to refer to it in these columns. Of the various plans of treatment that have been adopted with the view of preventing the recurrence of cancer, that of setons and issues will, I think, be found to afford the most promising results. Writing upon this subject, the late Mr. C. H. Moore remarks (Holmes's System of Surgery, vol. i., p. 605) "a greater good may be asserted to have attended the establishment of a slight drain from some part of the surface which is near enough to influence the locality of the disease, *without itself being liable to taint* [the italics are my own]. The existing evidence appears sufficient to warrant the insertion of a seton beneath the shoulder, after the patient has recovered from the effects of the operation of removing a scirrhous mamma."

Whether this deduction is drawn from the experience of the French surgeons Rayer and Boyer I cannot say; but if it were, and having regard to the very imperfect manner in which the primary disease was often removed before the general introduction of anæsthetics into surgical practice, I should not be disposed to think that it represented the full amount of benefit which might accrue under the most favourable circumstances—that is to say, where a complete removal of all tissue obviously infected with cancer had been accomplished. One condition necessary to the obtaining of even such a partial success as the postponing of recurrence implies is obviously dependent upon the fulfilment of this.

I cannot help agreeing with those who think that the

fluids of the body have more to do with the production of malignancy than the tissues; and, if this be so, may not the initial lesion resolve into one where "supply and demand" are the most important factors?

PYÆMIA FROM AN UNUSUAL SOURCE, SIMULATING ENTERIC FEVER.

BY E. F. FUSSELL, M.B., M.R.C.P.,
PHYSICIAN TO THE SUSSEX COUNTY HOSPITAL, ETC.

ENTERIC FEVER is so frequently under our observation that its easy recognition would be thought to follow from constant attention to its special features. Nevertheless, those amongst us who are occasionally called upon to give an opinion upon the more complicated cases of this disorder are obliged to confess that, in spite of clinical and pathological knowledge, our diagnostic acumen may be every now and then hampered, if not entirely baffled. To rightly interpret anomalous phases of the disease in question we are often compelled to pass in review other complaints which produce symptoms akin to those that are perplexing us. There are several such, too well known to need enumerating. I recite the following case because, in our researches to explain its somewhat obscure symptoms, we detected an unexpected source of evil, which we believe to have been the means of enabling us to arrive at a precise diagnosis of our patient's illness. Moreover, in my opinion its peculiar features recall forcibly to one's mind the notable observations on the absorption of septic products, published as leading articles in THE LANCET of April 2nd and 16th, under the title of "Blood Diseases and the Germ Theory."

I was requested to see in consultation a young man, in good circumstances, reported to be suffering from typhoid fever. I am indebted to a medical friend for the following notes:—

F. B—— was first visited on December 6th, 1880, suffering from diarrhœa without abdominal tenderness; temperature 103°; pulse frequent, 120; white tremulous tongue, not red on the tip or edges. Complained of having, for about a fortnight, what he termed a severe cold, aching limbs, and general depression. He had taken medicine from a chemist. He gradually became worse. The pulse became more frequent, with a peculiar thrill, very compressible, and for two days before death, which occurred on December 14th, it rose to 140 and 150. The temperature rose and fell rapidly without any corresponding alteration in the general symptoms. He passed on several occasions copious stools, much resembling the discharges from the bowels in enteric fever. Throughout the illness there were "no spots." During the last week pleuro-pneumonia supervened, affecting the lower half of the right lung. In the night of December 10th he had a prolonged rigor, and for the last four or five days profuse cold sweats. No enlargement of the spleen could be detected. His urine was high coloured and slightly albuminous. He became very deaf, but his mind was clear till four days before his decease; he was without headache or obscurity of thought. The last forty-eight hours he was delirious, talking and shouting. About ten months previous to this last illness he contracted a chancre, which was followed by an unusually severe attack of eczema.

In running through the various symptoms presented by this patient, notwithstanding that many of them resembled to a certain extent those of enteric fever, yet two were wanting, and these two so frequently found in the fully developed form of this disorder that my attention was at once arrested by their absence. (1) The tongue was not covered with a thin or thick white fur, nor were its margins red; (2) there was no eruption, rose-coloured or otherwise. There was no special sanitary defect about the house or premises; during the last few years no case of enteric fever in the village had come under observation; and I may here add that in the five months which have elapsed since the decease no case of fever has occurred in the young man's family. There were no signs of any affection of the joints, or evidence of subperiosteal abscess. We drew back a long prepuce, and exposed the glans penis; this was covered with an abundant creamy pus, and half its surface was occupied by a soft chancre in a sloughing state. We determined that there had been absorption into the system of this pent-up matter, and that our patient was suffering from pyæmia. As the symptoms were acute—that form of pyæmia, in fact, from which patients rarely recover—we gave a most unfavourable opinion to the parents, without detailing our discovery.

It will, of course, be asked how it came to pass that an examination of the penis should have been made. In this way. Some months previously I saw this patient, who was then covered from head to foot with a most copious eruption of acute eczema. He confessed to having had a chancre, was treated with mercury, and gradually recovered. Fortunately, in the above difficulty our researches were thus aided, and our perplexity, as we believe, solved, by a previous acquaintance with our patient's proclivities. No post-mortem examination could be obtained.

Brighton.

OBSERVATIONS ON WHOOPING-COUGH.

BY JOHN COLSTON, L.S.A.L.

WHOOPING-COUGH is a disease produced by a peculiar blood-poison which is absorbed and exhaled by the bronchial and pulmonary mucous membrane; therefore it is highly contagious, the air of the sick room and the evacuations and perspiration of the patient being charged with the poison. It is not a disease peculiar to childhood, but attacks all ages, though most common among children—indeed, I have known them born with it, the mothers having suffered from it for some time previous to their confinement. It is both endemic and epidemic—endemic in districts like this, where there is a very heavy clay soil with thick fog at night, sometimes even in summer. The poison may appear in many forms, as mentioned in my letter on the Welbeck poisoning, in THE LANCET of March 12th, but generally takes the form of catarrhal pneumonia, particularly in children. It may attack a person exposed to infection at once, as acute pneumonia, meningitis, &c., or may lie dormant in the system, even for months, producing merely slight weakness, till called into action by cold, change of air, or weather. A person may have an attack in winter, appear quite free from it during the following summer, but on the approach of winter again it returns.

In all the forms which this poison takes there are distinct exacerbations from about 4 P.M. to 8 or 9; then again from 10 or 11 till 5 or 6 A.M., after which time the patient may feel better until the afternoon. The exacerbations vary according to the part most affected by the poison; if the lungs, there is more cough, greater dyspnœa, often accompanied by disordered action of the heart simulating heart disease, but which arises from the circulation through the lungs being impeded by their congested state; if the brain is most affected, delirium is more violent, often more vomiting and diarrhœa. There is another peculiarity I have observed in patients suffering from pneumonia: the stools are occasionally almost white, as if the mucous coat of the hepatic and common ducts were affected in the same way as the pulmonary mucous membrane, and occluded for a short time by mucus. The pneumonia may also be preceded by convulsions, and seems to have a preference for the left lung.

On Dec. 22nd, 1877, I was sent for to see an infant in convulsions. When I arrived it was quite insensible, but not convulsed, except slight twitching of arms and legs; pupils contracted; thumbs turned into the palms. I examined its chest, as I invariably do under such circumstances, and found a mucous râle in the subscapular regions of both sides (which is the usual place). I applied two small blisters there, to be kept on for two hours, and followed by hot poultices changed frequently, and gave salines with tartrate of antimony. Next day the child was better. There had been no more fits, but it had coughed rather more (and this is often the case; when the congestion of the mucous membrane is relieved the poison passes off by it more freely, thus producing an increase of cough, which will improve as the treatment continues). The child continued to improve, and on Jan. 4th was quite well again.

The gravity of whooping-cough is not generally known or acknowledged, and if brought before some members of the profession is scorned, either because they cannot under-

stand or do not care to investigate it. I give a case in point.

July 9th, 1879, I was requested to visit a little boy who, with his mother, had come to stay with some friends a short distance off. I was told that he had suffered from a slight cough for some time, and seemed to have taken cold on the journey; he was very feverish, thirsty, &c., and slightly rambling in speech. I examined his chest carefully; respiration roughened and rather louder in the usual places, other parts of chest simply quickened. I applied two small blisters, to be kept on for two or three hours, to be followed by the hot poultices, and gave my usual mixture. His mother asked me the nature of his illness. I said "congestion of both lungs from whooping-cough." The next day he was better, and improved constantly until July 21st, when he was quite well again. I warned his mother to be very careful, as the weather was cold and wet; but some days after I received a note from her, saying that she was obliged to return home, and asking if he could be removed safely. I declined to take the responsibility of sanctioning it, but told her what precautions to take if it were positively necessary; thus I was not surprised to hear soon after that he had been ill again.

On Sept. 25th his mother called to pay my account, and told me that he was getting on well again; she also said that *her* medical man at home had told her that my diagnosis of the child's illness was wrong, and that he did not agree with my opinion. I answered her that the success of my treatment proved the correctness of my diagnosis, as the child was dangerously ill for two or three days only, and the whole attendance lasted only twelve, that if the gentleman, whose name I did not know, disagreed with my opinion, that arose from his want of knowledge.

On Sept. 1st, 1878, Mrs. G. C—— brought her infant to me; it had suffered from cough for some time, and when she came had diarrhœa with very offensive stools. I attended it for ten days, when it had quite recovered. Its grandmother had constantly nursed it, washed it and its clothes, and, if I remember right, it had slept with her. On Sept. 10th she sent for medicine, not feeling quite well, and on Sept. 13th sent in a hurry for me to see her about 7 P.M. I found her in bed propped up with pillows, violent pain shooting up each side of spine into the occiput and in the head, which was hot, and face much flushed; eyes injected, with contracted pupils; wandering manner; profuse diarrhœa, with very offensive stools; feeling of sickness, but not much vomiting; tongue brown and very dry. I ordered cold to the head, leeches to nape of neck, and sent a mixture with sesquicarbonate of ammonia, catechu, and cinchona, &c. There was, however, a long attendance, and when the spinal and head symptoms improved cough came on troublesome at night. That also improved, and she became convalescent towards the beginning of November. I warned her nurse to be careful of cold, but on Nov. 9th I was sent for in a hurry about 7 P.M. I found her suffering great pain in the subscapular region on the left side; it extended quite round the side to the front, and on auscultation found a mucous râle through the lower part of left lung. Cough very troublesome, great dyspnœa, with thick white expectoration. I applied a blister, to be followed by hot poultices, giving my usual mixture. She was better next day, and by Dec. 1st she was convalescent. I called occasionally in passing till Dec. 29th. I may add that she had suffered from an ulcerated leg for thirty years. This healed during her illness, nothing being able to keep it open, and she is now quite well.

In this case the child had whooping-cough, and gave the poison to the grandmother, in whom at first it assumed the form of cerebro-spinal meningitis, ultimately to appear in its true form, catarrhal pneumonia, from her catching cold while convalescent.

New Whittington, near Chesterfield.

CAMBRIDGE UNIVERSITY.—The Registrary of the University, Dr. Luard, supplies the following information, which may be interesting for purposes of comparison, as to the total number of all degrees conferred during the past academical year, excluding honorary degrees:—Doctors in Divinity, 7; Doctors of Law, 3; Doctors of Medicine, 7; Masters of Arts, 337; Masters of Law, 21; Bachelors of Arts (honours), 270; Bachelors of Arts (ordinary degrees), 314; Bachelors in Divinity, 4; Bachelors of Law, 40; Bachelors of Medicine, 16; Bachelor of Music, 1—making a total of 1020, the largest number ever yet recorded.

REVELATIONS UNDER ETHER.

BY TOM BIRD, M.R.C.S.,
INSTRUCTOR IN THE USE OF ANÆSTHETICS TO GUY'S HOSPITAL.

MY first case of ether mania was that of a man between forty and fifty years of age, who had undergone a simple operation for which he required to be deeply anæsthetised. Chloroform was denied him—reason unassailable. Gas and ether had been used, the operation lasting from ten minutes to a quarter of an hour. For two hours he literally confessed; as he expressed it in the evening—"I knew what I was saying perfectly. I knew that I ought not to say it, but I could not help it, and you ought not to have left her" (the nurse) "in the room." He was right, but I did not know why until I met with my second case some eighteen months afterwards. It was that of a young married woman, a hospital patient, whom I saw from half an hour to three-quarters after the operation. She was recounting to her mother (not present), in the clearest tones, subject-matter that I do not think she would have ever confided, if conscious; it was a subject that had evidently been laid by in memory. For a quarter of an hour I tried to divert in every way her attention to her present condition, insisting that her mother was not present, without the slightest avail; she was totally oblivious of everything but her story. The patient was a lady of education and refinement, and her language had not the slightest fault in its expression, but her bedroom was a "Palace of truth."

There is not the slightest connexion between the symptoms of these two cases and the ramblings of chloroform, which are disconnected, illusory, and easily diverted, occurring mostly during administration; or the gibberish of methylene bichloride, the latter is not even noisy; but this ether mania is a noxious thing, and the lesson I would draw is that the patient should be left only in the care of a discreet and responsible nurse until all self-control returns.

Brook-street, W.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tam aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

CHARING-CROSS HOSPITAL.

BILATERAL LITHOTOMY; REMOVAL OF EIGHT SMALL CALCULI, AND ONE LARGE MULBERRY CALCULUS; DEATH; REMARKS.

(Under the care of Mr. BELLAMY.)

AS illustrative of the possible difficulties during the operation of lithotomy the following case is highly instructive.

J. W——, aged seventy-two, was admitted on May 9th, 1881, with symptoms of stone in the bladder, which had commenced four or five years ago.

On admission his sufferings from cystitis were so acute, as indeed they had been for some time, that removal of the stone by incision was evidently indicated. On sounding the patient a large irregular calculus was readily felt, apparently encysted on the floor of the bladder behind the prostate. The operation of lateral lithotomy was determined on, and Mr. Bellamy performed it on May 17th. The perinæum was very narrow and deep, the prostate very large. On withdrawing the staff the stone slipped away from the finger and could not be felt on introducing the forceps. Suspecting that the calculus or calculi were pouched, Mr. Bellamy reintroduced the staff, and in order to give more room for manipulation cut the opposite side of the prostate, making the incision bilateral. On withdrawing the staff for the second time the finger detected a quantity of small stones, eight in number, which were not previously felt on sounding. These were removed with a scoop. The large stone, however, could not be felt at first, but by hooking his finger behind

the prostate Mr. Bellamy found it sacculated. A probe-pointed lithotomy knife was then introduced into the bladder and the stone was liberated and then removed with lithotomy forceps. It proved to be a large mulberry calculus, coated with phosphates and weighing exactly one ounce. The weight of the nine calculi was nearly one ounce and a half.

All went on well, and the patient expressed himself as completely relieved from pain, but on the 24th he suddenly changed for the worse, and died on the 25th.

Necropsy showed extensive kidney disease, cystitis, and a sacculated condition of the bladder, one small stone remaining in one of the crypts. There seemed no attempt at repair.

WEST LONDON HOSPITAL.

CASE OF HYPERPYREXIA OCCURRING DURING AN ATTACK OF ACUTE RHEUMATISM TREATED BY THE APPLICATION OF ICE; RECOVERY.

(Under the care of Dr. DONALD W. CHARLES HOOD.)

Jane A——, aged twenty-one, suffering from her third attack of acute rheumatism, was admitted on the 27th day of November, 1880.

On admission, the pulse was found to be 120, the temperature being 102° F. The ankles, knees, and wrists were affected, and there was a systolic apex murmur, which probably was to be referred to one of her previous attacks. The patient was ordered by Dr. Thorowgood, under whose care she was admitted, fifteen grains of salicylate of soda, to be repeated every four hours. Under the influence of this drug the pain speedily abated, so much so that on the 20th, being two days after admission, the temperature was normal, and the pain was all but gone. On the following day (the 30th) the pain was slightly increased; there was also a corresponding rise of temperature, and on the evening of the next day the temperature was noted as having reached 105° F.

On the afternoon of the following day (Dec. 2nd), in the absence of Dr. Thorowgood, Dr. Hood was asked to see the patient. He found her delirious, and with difficulty kept in bed. A short time previous to the visit the temperature had been 104·4° F., but at the time of the visit the patient was so restless that an accurate register was almost impossible. The pulse was upwards of 150; there had been several attacks of vomiting, and the face and eyes were markedly suffused. The patient was ordered to be placed immediately in a cold bath; but as there was some difficulty in getting the bath ready at a moment's notice, the house-physician, Dr. Johnson, very properly at once commenced the treatment by applying lumps of ice in direct contact with the patient's body; broken ice was thus applied over chest, abdomen, and thighs. The thermometer in the axilla marked 105° F., and would probably have gone higher had the patient's condition allowed of a complete registration.

At 4.40 the application of the ice was commenced, and its soothing effect was almost instantaneous. At 4.45 the temperature was 104·4° F., pulse 160; at 4.50 temperature 102·2°, pulse 120; at 4.55 temperature 101·4°, pulse 120; at 5 o'clock temperature 100°, pulse 96. At this hour the ice was removed, and the patient made comfortable in bed. Within a few minutes she was asleep, and slept well for fifteen minutes. On waking all delirium had gone; she knew nothing of what had happened; the temperature was slightly over 100°, and the pulse was about 90.

There is but little further to report, the progress of the patient being from this date uninterruptedly satisfactory. The pains left her, and convalescence was gradually established, the temperature being normal on Dec. 9th, the ice-pack having been used on the 2nd.

On the 13th the patient was discharged well, with the exception of her mitral bruit, which had remained unaltered throughout the attack.

She attended some weeks as an out-patient, and gained robust health, taking the perchloride of iron as a tonic.

Remarks by Dr. HOOD.—The above case is a highly instructive one, and points out clearly the great advantage to be gained in applying cold in the hyperpyrexic state. Here, as in nearly all the cases of hyperpyrexia occurring with acute rheumatism, the fever heat was foreshadowed by symptoms of nerve prostration, the pulse being small, rapid, and of little power; the delirium, the suffused state of conjunctivæ, all showed, especially in connexion with the high temperature, a loss of nerve control well-nigh hopeless in its gravity. The good resulting from the application of the ice was immediate, both rapid and pronounced. It appeared at once to sooth, the delirium ceased, and the pulse gained tone and power. No stimulants were needed and none were used. The simplicity of such treatment cannot fail to recommend itself to those who have not at their command the appliances of a large hospital, and to whom the difficulties which attach themselves to the bath treatment are often insurmountable; these difficulties may lead to the patient drifting into a hopeless state of pyrexia, which might certainly have been prevented had some such energetic treatment, as that we have described, been adopted at its onset, bearing in mind as a danger signal that the hyperpyrexia is ushered in by symptoms denoting rapid loss of nerve power.

KASHMIR HOSPITAL.

CASES OF ACUTE OSTEITIS.

(Under the care of Dr. DOWNES.)

A YOUNG man, aged about sixteen, was seen during the summer of 1878. The tibia had been enlarged and tender for some time, but for a week or so it had become so painful that he could not sleep. He attended for a day or two as an out-patient, and then was admitted. Various remedies were tried, but without effect. After placing him under chloroform an incision was made to the bone through the periosteum, which was considerably thickened. The two lips of the incision were held apart, and with a trephine a piece the whole thickness of the bone into the medullary canal was removed. No pus escaped. As soon as he recovered from the chloroform he declared himself to be already free from pain, and for the first time for many days he had a good night's rest without narcotics of any kind. Pus was soon discharged freely from the hole made by the trephine; after about a week it began to granulate, and after about three weeks in hospital he was discharged as cured.

In a second case, somewhat similar, instead of a trephine linear osteotomy was performed with a Hey's saw. In this case a little pus escaped from the bone at the time of the operation. The patient was cured by the operation from the pains which for some weeks previous had been almost insupportable.

The third case occurred in the summer of 1879. In this case again the bone affected was the tibia. The patient was a man aged about thirty, and was unmistakably syphilitic. He had been an out-patient for a long time; at last the leg became exceedingly painful, in spite of all our remedies. Linear osteotomy was performed. No pus escaped at the time of the operation, but the relief afforded was most decided.

The next case was that of a child about eight years old. He was carried to the hospital by his father, almost exhausted by the suffering he had gone through. The left femur was much enlarged, tender, and painful. The disease had been coming on for some time. A cut was made down to the bone on the outside in the lower third. The periosteum was held out of the way, and a section was made through the bone with a Hey's saw. A large quantity of pus came out of the incision, an abscess in the substance of the femur having been opened. The relief was immediate and complete; the pus continued to discharge for some days, and thus the wound began to granulate, and finally healed. The boy left the hospital cured after about six weeks' residence there.

The last case to be recorded was one of acute osteitis of the left humerus, which came under observation in 1879. The patient was a woman about thirty-five years old. The lower part of the humerus was much enlarged and very painful. At first it was feared the joint was affected, but an attempt was made to save it by performing linear osteotomy, and it succeeded. The incision was made on the outside of the arm behind the ridge running up from the external condyle and parallel to it. Linear osteotomy was performed; no pus escaped from the bone at the time of operation, but was freely discharged a few days afterwards. About a fortnight afterwards it was found to be possible to move the elbow without causing much pain. The condition of the limb continued to improve, and she was discharged after having been in hospital about six weeks, with the

wound healed and the joint in a very satisfactory condition.

Remarks by Mr. DOWNES.—Mr. Erichsen advises in acute osteitis the performance of linear osteotomy, but I fancy that this is rarely done. In the above-mentioned cases the operation was performed with manifest advantage; in three cases the bone was the tibia, in the fourth the femur, and in the fifth the humerus. In Kashmir the people appear to be peculiarly subject to diseases of the bones, probably due to the syphilis which has infected nearly the whole population. Cases of caries, necrosis, periostcitis, and osteitis, are extremely common. In the latter disease it is difficult to do anything with it, but at last a case came under my care in which the great pain the patient suffered made me determine to do something more than follow out the ordinary anti-syphilitic treatment.

Reviews and Notices of Books.

A Text-book of Practical Histology. With Outline Plates. By W. STIRLING, M.D. &c. Pp. lv. and 125. London: Smith, Elder, and Co. 1881.

THE appearance of this elaborate work is an evidence of the increasing importance that is attached to the practical knowledge of a subject which until quite recently was regarded as a matter of purely theoretical interest. The increased interest in practical histology is, however, we fear, so far as students are concerned, simply an outcome of the more stringent regulations laid down by the chief examining boards in the country, and is not attributable to any desire for a more thorough and accurate knowledge of the minute anatomy of the organs and structures of the body.

Dr. Stirling's work appears to us to be in some respects superior, in others inferior, to treatises on the same subject that have recently appeared. Its cost, too, is very considerable, and this must be taken into account when it is considered that such a text-book does not do away with the necessity for the purchase of a systematic treatise upon general anatomy. The work consists of an introduction, in which short and concise directions are given upon most of the technical details connected with the use of the microscope and the preparation of tissues. This is perhaps the best and most useful part of the book. It includes amongst other methods, not usually described in the standard text-books upon practical histology, that of measuring the thickness of cover-glasses by the ingenious apparatus of Zeiss, as well as the American modification of the instrument. The various forms of microtomes are described and delineated, and directions are given for double and treble staining. The introduction, moreover, is all the more valuable from the statement made by the author in the preface, that it is the result of practical experience, and that he has made mention of no method which has not been found after repeated trials to be successful. We are glad to find that, as a rule, our own experience confirms that of Dr. Stirling. We cannot, however, agree with him that the staining and clearing of specimens on the slide are infinitely preferable to lifting sections from the clove oil, even with the most approved form of section-lifters; such a method would, we think, in the hands of students, be conducive to anything but neatness and a successful preparation. Under the account of hardening solutions, methylated spirit is said to be sometimes, but rarely, used alone; this is surely contrary to the opinion held by the best authorities upon the subject, as this method, while easy of application, certainly affords excellent results.

The second part of the work is devoted to a description of the various organs and tissues of the body. The method adopted by the author is to give in each case a short description of the mode of preparation of the tissue under consideration, and then to point out the chief features worthy of attention. In this, the purely histological portion of the book, Dr. Stirling appears to have availed himself largely of a recent work upon the subject which emanated from the same publishers, and we think that it deserves more acknowledgment than it has received.

The plates, with the exception of the frontispiece, are simply outlines of the tissues, and as such are intended to be filled in by the student himself. Dr. Stirling very properly insists upon the importance of drawing the objects seen under the microscope, not only as a guarantee to the teacher that the student actually sees what is there present, but also as a means of impressing on his mind the details of each specimen. In this view of the matter we cordially agree with the author, and we also regret with him the reluctance which is generally shown by students to making the necessary drawings. We can scarcely think, however, that so costly and elaborate a system of plates is required for so simple a purpose, though perhaps it may tend to accustom the student to extra pains and care. Neither do we think it advisable or necessary to recommend students in the earlier part of their practical learning in histology to make coloured drawings; a simple pencil sketch carefully made to the best of his ability is, we feel sure, superior to all the colouring of the most elaborate artist. The aid, moreover, which could be derived from the outlines provided is so scanty that we do not think it will compensate for the greatly increased cost of the work which their reproduction must necessarily entail.

In conclusion, we may call Dr. Stirling's attention to a few points which we have noticed in reading through his work. Under the article "Blood" we find no mention of the method of permanent preparation by simply drying the corpuscles on a slide, though excellent results may be thereby obtained; neither is the action of electricity upon blood described. It is directed that the observation of ciliary movement should be made with the gills of the sea-water mussel, an animal obtained with difficulty by students living inland. The passage is doubtless a transcript of the author's directions to his class; still in future editions we may hope to see a short description of the method of obtaining ciliated cells from a more accessible type of animal—as, for instance, from the common frog. Under muscular tissue the unstriated muscle is directed to be stained in logwood, though anilin, in our opinion, gives better results. In describing the sweat glands Dr. Stirling makes no mention of the difference in structure that obtains in them, and does not even allude to the presence of the encircling involuntary muscular fibres. The variations in the structure of the ciliary muscle might have been brought out more prominently by directing the student to prepare a section from the anterior half of the eyeball of a raptorial bird, as of a hawk, in which the muscle is distinctly striated. Lastly, we cannot with the author give the preference to dammar varnish over Canada balsam, for after considerable experience we find that the former is not nearly so serviceable, and that it frequently becomes filled with minute bubbles, thereby ruining the specimen it is intended to preserve. The index is well drawn up and serviceable.

St. Bartholomew's Hospital Reports. Edited by W. S. CHURCH, M.D., and ALFRED WILLETT, F.R.C.S. Vol. XVI. London: 1880.

THIS volume contains articles bearing upon almost every department of work in the hospital, both in number and interest quite up to the average. There is less theoretical and speculative matter than usual, the subjects treated being practical, and therefore all the more useful. In the department of anatomy there is a report by Mr. Walsham of the more important anatomical variations that have come under his notice in the dissecting-room during the last seven years. They include muscular, vascular, nervous, and visceral anomalies, some very curious. Mr. Walsham has

met with three examples of a left superior vena cava, one of which he details, accompanying his remarks by a review of the subject. His paper is well illustrated. Dr. Claye Shaw contributes a note and drawing of a case of congenital absence of the right olfactory bulb. It occurred in an insane subject, but who had never presented any defect of smell during life. Not only was the olfactory lobe completely wanting, but the cribriform plate on that side was not perforated. A contribution to the anatomy of the organ of smell is made by Dr. Klein in an article on the organ of Jacobson, which would have been illustrated with advantage. Dr. Klein suggests that this organ, which is rudimentary in man, is devoted to the perception of specific odours. In physiological chemistry Mr. D'Arcy Power gives a very complete *résumé* of "the present state of our knowledge in regard to ferments," and in so doing has accomplished a very useful piece of work, which not only illustrates the remarkable progress made of late years in investigations into this subject, but also shows how great a share is taken in the organism (and without it) by the process of "fermentation." He divides the ferments into morphological and non-morphological. Drs. Brunton and Cash, in a paper on Stannius's Experiment and the action of Strychnia on the Heart, give physiological evidence in support of the fact, well-known in practice, of the value of strychnia as a cardiac stimulant. They say truly that in this respect there is no tonic to be compared with it, especially in cases where there is general debility and lack of tone, as in overwork and mental strain. Dr. Brunton also has a note upon the cause of non-precipitation of oxide of copper in diabetic urine, from which we gather that, when this occurs, it is due to the presence of some indican derivative which holds the oxide in solution. There are many papers on medical subjects. Dr. Dyce Duckworth essays a formidable task, and performs it with perspicuity in his article on Unequivocal Gouty Disease. The subject of gout and its alliance with other arthritic diseases is still open to inquiry, and we may take Dr. Duckworth's contribution as a first instalment of his work on this important subject. Dr. Southey records a case of Symmetrical Gangrene, the value of which is enhanced by a review of the literature on the subject, to which Raynaud seems to have been the chief contributor, and Dr. Southey endorses that observer's theory that the condition is due to stasis in the peripheral arteries or "local asphyxia." Dr. Gee gives the records, in his usual pithy style, of certain cases of nervous disease, especially spastic paralysis and sclerosis. In a note on the paralysis following compression of the arm, he attributes the palsy not to pressure on nerve trunks, as Graves and Todd did, nor to cold, as Duchenne, but to ischæmia from pressure on the brachial artery. He also relates a case of traumatic myelitis with muscular atrophy and rigidity, following a fall from a window, and one of motor ataxy with facial paralysis; another of teichopsia, in which the subject of this curious affection relates his case himself. In a note on Infantile Paralysis Dr. Gee points out that the lameness of Sir Walter Scott was due to this affection. Dr. Gee contributes two other papers, one on Purpura in Chronic Nephritis, in which he assigns a common cause to the two lesions; a second on Foreign Bodies in the Air-passages, including notes of one case of Impacted Cherry-stone in the Windpipe of a Child, fatal after tracheotomy and attempted extraction, and another where a piece of bone was lodged in the trachea for three weeks, ending in spontaneous detachment and recovery. Dr. Samuel West records several cases of "Mimic or Phantom Aneurisms," Dr. Ormerod some cases of Intra-cranial Syphilis, and Dr. Legg writes on Certain Abdominal Tumours. Dr. Harris, in a paper on Angina Pectoris, urges its essential dependence on cardiac dilatation. Dr. Champneys has a short article on Dilatation of Ureters in Extroversion of the Bladder. A paper by Dr. Norman Moore, giving the results of post-mortem examinations on Cerebral Hæmorrhage, confirmatory of the established association with cardiac hypertrophy and interstitial nephritis, and one on a case of Hystero-Epilepsy by Mr. Jessop, make up the unusually long list of medical subjects treated in these Reports. In Surgery Mr. Howard Marsh gives details of some cases of abdominal surgery — viz., one of internal strangulation relieved by operation, but unfortunately fatal subsequently from septicæmia, and several cases of strangulated inguinal hernia in young adults. Mr. Marsh also writes upon the Acute Arthritis of Infants; Mr. Willett treats of Resection of the Tendo Achillis in Paralytic Talipes Calcaneus; Mr. Walter Pye advocates cotton-wool saturated with salicylic acid as a substitute for the gauze in antiseptic dressings; and Mr. Lockwood gives the notes of some cases of syphilis. In Ophthalmology Mr. Henry Power describes the After-treatment of Cataract, as followed in past and present times; and Mr. Bruce-Clarke writes on the Changes in the Optic Disc associated with Spinal Concussion—the changes being transient hyperæmia and œdema. In Aural Surgery Mr. Cumberbatch deals with the subject of Aural Exostosis; in Gynæcology Mr. Walter Griffith with Perimetritis and Parametritis. There remain two papers not included in the above lists—viz., one by Dr. Claye Shaw upon Intestinal Lesions in the Insane, mainly ulceration following constipation, or accumulation of undigested matters from irregular action of the intestines, liver, and pancreas; and a posthumous essay on Port Sanitary Work, by Harry Leach. Thus, it will be seen, the volume covers wide ground; and, if it does not aim very high, it contains a useful collection of Reports, and thereby justifies its appearance and title.

CASE OF CÆSAREAN SECTION.

To the Editor of THE LANCET.

SIR,—Anxious to avoid in my description anything but facts, and unable, owing to decomposition, to verify my opinion, I did not state in my note on the case of Cæsarean section that the obstruction was due to cancer. I did not think for a moment that anyone could carefully read the case without seeing that the previous history ("offensive bloody discharge, darting pains, bleeding on coition," &c.), the physical signs ("hard nodulated mass, with ulcerated surface"), and the result of fourteen hours' hard labour ("os quite unchanged"), could have no other interpretation. The protracted softening of the dense tissue was the result of decomposition. Had I mentioned the positive and decided agreement of my partner and myself in this opinion, I might have spared Mr. Tweedie and myself an acuter comprehension in our respective uses of the pen and the knife of the saying,

"Ah me! what perils do environ
The man who meddles with cold iron."

Not at all do I doubt that Mr. Tweedie had but little difficulty in convincing himself that he "in a similar case would be able to accomplish delivery without having recourse to Cæsarean section." He might find more difficulty in convincing others; but this he does not attempt. Unfortunately, this disorder of the ideational faculty, as Dr. Carpenter calls it, is but too common in our profession, though it is seldom so pronounced as to become the subject of comment in THE LANCET. I am glad he does not include me among "practical men." In our profession the "practical man," as a definition, is homologous to the "amiable woman of the other sex."

It is no "new thing" for the operation to be done where there is no pelvic deformity. Dr. Barnes says, "a condition which has several times led to the Cæsarean section has been disease, mostly malignant, of the lower segment of the uterus." The possibility of other measures in such a case would certainly be more likely to be fairly judged by those in charge, and with the facts actually before them, than by "practical men" who had not seen the case. I envy no man the condition of mind which would credit the responsible guardian of such a case with the performance of so serious an operation without due consideration of all other possibilities, and a deep sense of the responsibility of his position.

I am, Sir, yours faithfully,

JOHN H. GALTON, M.D. Lond.

Woodside, Anerley-road, S.E., June 27th, 1881.

THE LANCET.

LONDON: SATURDAY, JULY 2, 1881.

THE annual election of members of the Council of the Royal College of Surgeons will take place on Thursday next. What the result is likely to be it would be neither safe nor prudent to attempt to predict. Rarely has there been such a conjunction of so many disturbing elements. The result will be determined by the motives of the Fellows who vote. Two forces are usually at work in the College elections, and it is but seldom that these two forces operate in the same direction. Personal predilections are too often allowed to prevail over considerations of public interest. Many candidates are supported, not because they are known to have given time and study to questions of medical education and professional politics, but because they happen to be connected with a particular hospital or school. In recent years this practice has grown to the pernicious extent of sanctioning the candidature of provincial Fellows in opposition to those resident in the metropolis. With this fashion we have never hesitated to express want of sympathy. The position we have always taken has been consistent throughout. It is obvious that members of the Council residing far from London cannot give the necessary amount of time and personal attention to the affairs of the College that these now require. If Fellows of high standing and repute like Mr. LUND of Manchester, and Mr. CADGE of Norwich (and we might add Mr. TEALE of Leeds), are willing to devote their time and their talents to the business of the College so far as it deals with matters relating to the education and examination of medical students, their services will always be as acceptable as those of any surgeon in London. These services are, however, acceptable because these gentlemen are known to be both competent and capable, and not because they happen to reside in the provinces. This is a distinction that most of those who advocate the annual election of a provincial candidate, as such, fail to perceive. They ignore alike the danger of creating antagonism and unenviable rivalry between the metropolitan and the provincial Fellows, and the inconvenience that must arise if more than a small proportion of the Council consists of Fellows residing in the provinces. The real business of the Council is, in a large measure, transacted by committees; and as it is necessary that these committees should meet often and at short intervals, it is manifest that members of the Council residing in the provinces cannot take their proper share of these duties unless they are prepared to give up a still larger portion of their time, and spend most of it in railway travelling.

As regards the candidates for the ensuing election, it may be said that if their number did not exceed the number of vacancies, almost any three taken at random would make fairly useful members of the Council. There are, however, six candidates and only three vacancies. A selection must, therefore, be made. How is this selection to be determined? Considerations of seniority should have some weight, and services to the College ought, perhaps, to be allowed to turn the scale between two candidates otherwise equally eligible. Judged in this way, the re-election of Sir JAMES PAGET and the election of Mr. HULKE and Mr. HEATH should follow. The re-election of Sir JAMES PAGET is practically certain. Sir JAMES has served the profession through his connexion with the College for nearly thirty-five years. In 1847 he was appointed Arris and Gale Professor of Human Anatomy and Surgery, when he delivered his famous lectures on Surgical Pathology. He was elected a member of the Council in 1865, re-elected in 1873, and became President in 1875. On the resignation of Mr. QUAIN, in 1876, he was appointed representative of the College in the General Medical Council, and in 1877 he delivered the Hunterian Oration. For two or three years past he has been engaged in the preparation of a new edition of the catalogue of the Pathological Series in the Museum of the College. Mr. HAYNES WALTON, who also seeks re-election, was originally elected in 1873, and has, therefore, enjoyed office for the full term of eight years. Mr. HULKE, the senior candidate for election, has for over twenty years taken an active interest in the College, and deserves a corresponding degree of support from the Fellows. In 1859 he obtained the Jacksonian prize for his essay on the Morbid Changes in the Retina, and in 1868 he was appointed Arris and Gale Lecturer on Anatomy and Physiology. For four years—from 1876 to 1880—he was a member of the Board of Examiners in Anatomy and Physiology, and in the latter year he was appointed a member of the Court of Examiners. Mr. CROFT, though possessing many friends and well-wishers, has not hitherto held any office in the College. Mr. CHRISTOPHER HEATH, on the other hand, gained the Jacksonian Prize in 1867 for his essay on Diseases and Injuries of the Jaws, and in 1875 was elected a member of the Board of Examiners in Anatomy and Physiology, and was reappointed each year till 1880. Mr. REGINALD HARRISON is the junior candidate, being a Fellow of 1866. He comes forward professedly as a provincial candidate, and will, doubtless, receive some support in consequence. Mr. HARRISON has gained the respect of all who know him for his zeal and activity as a teacher and practitioner, and at some future time will, no doubt, be a very useful and valuable addition to the Council; but at the present his candidature is, to say the least, somewhat premature.

WHEN the Fellows of the Royal College of Surgeons meet next Thursday to elect three of their number into the Council, they may at the same time, by an opportune, though informal, expression of opinion virtually settle the question as to who shall be the next President. There are obvious reasons why the Council should depart this year from the customary routine of electing the senior Vice-President. The meeting of the International Congress is close at hand, and it is desirable, both in the interests of English surgery and for the credit of the College itself, that the President should be a general surgeon of acknowledged eminence. It is no disrespect to the senior Vice-President to say that his reputation is not of this nature. As a dermatologist, he is in England pre-eminent, but as a surgeon in the ordinary sense

of this term he is not known. Sir JAMES PAGET will be the President of the International Medical Congress, and Mr. ERICHSEN the President of the Surgical Section, while other members of the Council of the College will occupy prominent positions in the Surgical Section. The Council therefore contains many acknowledged representatives of English surgery, and it is incumbent upon the members of the Council to set aside all personal prejudices and inclinations, and to agree among themselves to select for their President one who would be acceptable not only to the majority of Fellows, but also to the distinguished surgeons from abroad who will visit us next month. Unless the ordinary course of events be changed the President of the Royal College of Surgeons during the meeting of the Congress will be a gentleman to whom no office in the Surgical Section can properly be assigned, though he has deservedly been appointed the President of the Section of Dermatology. Mr. WILSON'S eminent fitness for this last-named office is precisely the disqualification for Presidentship of the Royal College of Surgeons, and we would fain believe that his loyalty to that branch of the healing art, in which he has gained both his riches and his renown, will not suffer him to accept an extraneous duty that will distract his attention from the proper subject of his choice. Mr. WILSON'S services to the College have, in the past, been so conspicuously unselfish that we shall not be surprised if, at the last moment, he voluntarily waives his claim to the Presidentship of the College this year. In 1869 he not only gave the sum of £5000 to found a chair of dermatology, but accepted the duties of professorship himself, and discharged them for nine years, and, to show that it was no favour, received regularly the yearly stipend of the office. When Mr. WILSON ceased lecturing, the Council of the College, perhaps to emphasise the distinction, resolved, with Mr. WILSON'S sanction, to abolish the professorship and to divert the money into other channels. To Mr. WILSON, accordingly, belongs the exceptional honour of not only founding a chair of dermatology in the Royal College of Surgeons of England, but of being the first and only professor of this subject the College has ever had, or is likely to have. It can, therefore, scarcely be said that the Council has been ungrateful; and those who are best acquainted with Mr. WILSON'S ingenuous disposition will be the readiest to allow that he himself is not likely to set up this or any other gift he may be disposed to make to the College as a claim to the presidential chair.

THE first step in the application of the principle of conservative surgery to the foot was taken when HEY and CHOPART devised the operations which have been named after them as substitutes for amputation through the lower part of the leg for injury or disease of the foot. The recognition of the fact that amputations could be successfully performed at the tarso-metatarsal or mid-tarsal joint, was one which has borne great results; but of late years the tendency among operating surgeons has been to regard the foot more as a single segment of a limb than as a series of segments, and amputations are now commonly performed at any level which secures the removal of the whole of the injured or diseased parts. This, too, has, we believe, proved a step in advance, and has been the means of leaving patients with longer and more useful stumps than they would otherwise have had. But one of the chief aims of conservative surgery has always been to obviate the necessity for amputation altogether, and by the removal of the diseased parts alone to conserve all healthy useful structures. It is to a modern application of this principle, as applied to destructive disease of the bones of the foot, that we would direct attention.

At first excision of bone was applied within very narrow limits, part of a bone, or at most a whole bone, being considered the limit of its applicability; and the doctrine that the removal of parts giving length and breadth to the foot would so interfere with the usefulness of the organ for support found many supporters. Gradually, however, this has been shown to be fallacious, until we have arrived at this, that even the whole tarsus, or the entire metatarsus, or nearly the whole of both, may be successfully excised and the foot be very serviceable for support and progression. Dr. O. KAPPELER has published, in the *Deutsche Zeits. f. Chir.*, seven striking cases of his own, and has tabulated in all fifty-nine cases of these extensive excisions of the foot. In the first case the whole metatarsus, the three cuneiform bones, and the cuboid, were removed; in the second, the three cuneiform bones, the bases of the second and third metatarsal bones; in the third, the astragalus, scaphoid, three cuneiform bones, cuboid, and part of the os calcis; in the fourth, the three cuneiform bones, the cuboid and all the metatarsus; in the fifth, the lower ends of the tibia and fibula, astragalus, scaphoid, three cuneiforms, cuboid, and nearly the whole of the os calcis; in the sixth, the metatarsus, three cuneiforms, cuboid, scaphoid, astragalus, and part of os calcis; and in the seventh, the astragalus, the scaphoid, the cuboid, and the greater part of the os calcis. All the patients recovered from the direct effects of the operation, and in all of them the part, though shortened and misshapen, was yet not so deformed as might have been expected, and was extremely serviceable for support and progression. In three of the cases recovery was complete, the function of the part being restored entire; in a fourth, local recovery ensued, but disease was lighted up in another joint; a fifth case was progressing satisfactorily, but the sinuses were not quite closed when the cases were published. Case 4 healed up entirely, but the patient died of phthisis two years after the operation. Case 7 did not heal, and three months after the operation death from albuminoid degeneration and miliary tubercle of the lungs ensued. We cannot here refer to the other cases cited in KAPPELER'S table; but they demand attention from two points of view: first, as showing how useful a foot is left after most extensive resection of the bones. In this lies their main interest and importance; it is a new fact, and in direct opposition to the recognised teaching of only a few years ago. They deprive the surgeon of one of his main arguments for amputation in disease of the tarsus—that nothing else can cure the patient, and leave him with a useful limb. Of this fact there can be no doubt, but the question arises whether a useful limb may be depended on? Will the wound heal? and will the foot always be firm enough for support? From this table of cases we learn that of 50 patients living, 42 had thoroughly useful and sound limbs, 2 subsequently submitted to amputation, and in 5 the result was not definitely known; so

that the proportion of good cases among the recoveries has been large. The other important question is the relative mortality of these extensive excisions of the foot and amputations at the ankle-joint. Of the 59 cases, in all 9 died, 1 from typhoid fever after local recovery, 2 from pyæmia, 2 from albuminoid disease, 1 from "exhaustion," 1 from phthisis, 1 from dropsy, and 1 from further disease of bones. The first death may be excluded as accidental, and the two from pyæmia ought to be excluded by our recent methods of antiseptic treatment; but inclusive this shows a mortality of 15·2 per cent., which is considerably in excess of that after SYME'S amputation, given as 6½ per cent. for cases of disease, by HANCOCK. It is, however, to be observed that excision is an operation that can be performed earlier than amputation, and does not exclude it, and looking to the causes of death named above it is evident that nearly all may be fairly said to be preventable by early operation. And if surgeons can feel justified in promising a useful limb after resection they will be able to advocate its performance early in a case, and not regard it as an alternative for amputation when the local mischief is far advanced and the general health seriously undermined. Of the mode of performing the operation KAPPELER has little to say, but he advocates a scrupulous avoidance of transverse incisions, which would imperil the blood and nerve supply of the distal parts, and he seems to have attempted the subperiosteal resection wherever possible.

ONE of the drawbacks of Royal Commissions is that the public is not informed as to their work. They sit with closed doors, and do not submit their proceedings or the evidence which they take to public criticism. The Royal Commission on the Medical Acts is not different from other Commissions in these respects, and is perhaps even a little more particular in excluding the public and the press than others. This, from our point of view, is a disadvantage as compared with the proceeding of a Select Committee. Still, there are advantages. The Royal Commission is not bound by time or place. It is not dissolved, as a Select Committee, by the dissolution of Parliament. It can assemble anywhere, and it can meet in the interval of sessions. There is, too, this very great advantage, that it includes members of both Houses of Parliament, and men who are not members of either House. The importance of this advantage of a Royal Commission cannot be well overstated. Whenever the question of amending the Medical Acts has come before either House of Parliament, it has been painful to see the very limited number of persons who were able to take any material part in the discussion. Members of the Government who were in immediate charge of the Bill, a medical Member of Parliament, or the Chancellor of a University that might think its interests touched by the proposed changes, would comprise almost all the available force for a proper discussion of questions affecting both public health and medical culture. This state of matters will at any rate be altered and made less serious; a larger number of Members of Parliament will be brought to see the bearings and the special interest of the question, and so be enabled to enlighten their colleagues on the subject. Not only so. The Commission includes persons outside of Parliament, whose judgment on such matters as are under investigation must be of the greatest value—such, for example, as the Bishop of PETERBOROUGH, the Master of the Rolls, Sir WILLIAM JENNER, Mr. HUXLEY, Mr. COGAN, &c.

Sir WILLIAM JENNER, it is true, since his appointment as a Royal Commissioner, has been elected President of the College of Physicians, and may therefore be thought to represent rather the corporations than the reform for which public and professional opinion has so long and so earnestly been asking. But this relation of Sir WILLIAM JENNER to the College of Physicians notwithstanding, he may well be trusted not to make the mistake, which has hitherto been made too frequently, of thinking that the profession exists for the corporations, and not the corporations for the profession. There is reason to believe that the other members of the Commission are going very thoroughly and very impartially into the inquiry on which so much depends for the public welfare and the reputation of the profession in future. Everybody agrees that the present state of the law is indefensible, and that the existing Medical Council and medical authorities need the touch of a reforming hand. The Medical Council is a thing almost of yesterday. It has existed only long enough to show its inefficiency and weakness. The medical bodies, on the other hand, were called into existence centuries ago, and from very age need the same application.

It is scarcely likely that we shall get a body of inquirers more competent than the one now sitting at 2, Victoria-street. It is creditable to our institutions that men with the engagements of a bishopric, of a High Court of Justice, of high consulting practice, find or make time to attend the meetings of the Commission once or twice a week, and are to all appearance really anxious to reinstate medical institutions in the respect of the profession and the public.

Very much will depend, as far as regards the result of this great inquiry, on the way in which the representatives of reform state their case, and make their demand. They are at this disadvantage. They represent a busy profession, with little organisation or cohesion, and have to contend against nineteen highly organised bodies, and for the most part old, which have the advantage of being all represented by eminent and justly-esteemed members of the profession. They have further to contend against a certain notion—entertained by thoughtless people, and fostered by some who ought better to understand the medical profession—that the demand for medical reform means merely the assertion of a kind of trades unionism. If medical reformers can, on the one hand, succeed in showing the substantial agreement which really exists amongst them; and are able, on the other, to show that they aim at professional advantage only in so far as that consists with public advantage, their case is not likely to fail before any reasonable body of investigators. The great error to be avoided on their part is making extravagant or multiplied demands. What these demands should be shall be the subject of an article next week. Meantime we continue to look with interest and respect to the work of the Commission.

DR. JAMES REID, of Ellon, has been selected by the Queen to take temporary medical charge of the Royal Household, pending the completion of the new arrangements rendered necessary by the resignation of Dr. Marshall on account of ill-health.

Annotations.

"Ne quid nimis."

NAVAL MEDICAL DEPARTMENT.

THE regulations for the entry of candidates for commissions in the Medical Department of the Royal Navy, based upon the recent Admiralty Instructions, have just been issued. They correspond closely in the most important particulars with those in force for the army. The candidate must be not under twenty-one nor above twenty-eight years of age; must be registered under the Medical Act as possessing two diplomas or licences, one to practise medicine and the other surgery; must produce a certificate of moral character; and must be free from organic disease and any imperfection or disability that might interfere with the efficient discharge of his duties in any climate. He must pass an examination by a board of medical officers as to his physical fitness, and must declare his readiness to engage for general service at home or abroad as required. These preliminary conditions being satisfactorily fulfilled, the candidate must pass an examination in—1. Anatomy and physiology. 2. Surgery. 3. Medicine, including therapeutics and the diseases of women and children. 4. Chemistry and pharmacy, and a practical knowledge of drugs. No information is given, as in the army, with regard to the number of marks attainable in each subject. In addition to these compulsory subjects candidates may volunteer for examination in comparative anatomy, zoology, natural philosophy, physical geography, and botany with special reference to materia medica, and in French and German. The marks gained in these will be added to those for the compulsory subjects, and will affect the candidate's position on the list of successful competitors. Candidates after passing the examination will receive commissions as surgeons, and will be sent to Haslar Hospital to undergo a course of practical instruction in hygiene, &c. No information has yet been published as to the nature of the course, its duration, or the qualifications of the officers by whom it is to be given; but, as we have already said, we consider it a misfortune for the Naval Medical Department that it is to be deprived of the valuable instruction hitherto given in the very efficient school at Netley. Judging by the experience of bygone days, when a profession was made of giving a special course of lectures at Haslar, we expect to find that it will prove to be a delusion terminating in failure. Appended to the Instructions is a copy of the recently issued Order as to pay, retirement, &c. As we have so recently commented upon it we need not again enter on the subject. We would only call attention to the vague manner in which the question of choice of cabins is dealt with. "Cabins will be appropriated to medical officers according to rank and duties." Some explanation of the manner in which this regulation is to be worked seems at least advisable. We can only again express our regret at the unsatisfactory manner in which this important subject has been treated by the Lords of the Admiralty in everything except the scale of pay and retirement, and our belief that the conditions of the new Warrant will not be deemed so satisfactory as to induce a good class of students to come forward as candidates for admission into the Department.

THE FISH SUPPLY OF THE METROPOLIS.

THE thanks of the community, and especially of the inhabitants of London, are due to Mr. Firth for his question, and to the Home Secretary for his answer, on the subject of the fish supply. With butcher's meat so dear as to make it almost a luxury of the rich, it is quite shocking that "the abundance of the sea" should be intercepted by monopolists, and by the obstructions which they succeed in creating or maintaining. It is not creditable to the Corporation of London that in this important matter it should have done so little to facilitate the fish trade, and so much to preserve and protect a monopoly contrary to the interests of the public. It is high time that the Government took the question into its own hands. The supply of rarer and choicer fish, such as salmon, is not a mean question, but one that merits the best attention Government can give to it. It is thought by good judges that the selfishness of locally interested proprietors and authorities, if much longer unrestrained, will make salmon, before many years are over, a historical food. Be this as it may, the great fish market of London must be made more worthy of the unbounded supply of the ocean and the almost equally unbounded wants of the four millions of this metropolis. The medical profession know well that the community may be divided into three classes, of which the over-fed and the imperfectly-fed make a considerable proportion. The fish of the sea has not to be fetched from America, like so much of our cattle supply; neither has it to be reared at a great cost. It is nigh us and about us everywhere, but hitherto has been kept from us very much by the fault of the Corporation of London.

POST-MORTEM EXAMINATION ON PROFESSOR SKODA.

SKODA had expressed a wish that his body should be carefully examined in all parts, and had asked Professor Heschl to perform for him this last service. Heschl, however, died some weeks before Skoda, and the news of his death was received by the latter with the exclamation, "Now some one else must examine me." The task was entrusted to Dr. Chiari, and the examination was made on the 14th June in the presence of Schrötter, Kohn, Chrastina, and Kraus. The following is a condensation of the official account: The body was thin and pale, and the lower limbs œdematous. The skull was of moderate thickness, the bone and dura mater being adherent. The arachnoid was somewhat opaque over the convexity, and separated from the convolutions by a considerable quantity of serum. The larger arteries were degenerated and calcified. The brain, including the meninges, weighed 1300 grammes (forty-five ounces)—considerably below the average in weight; indeed adult male brains of lighter weight are not often met with. The convolutions were of the ordinary configuration, the sulci being wide. The cerebral substance was somewhat diminished in consistence. The ventricles were rather large, and filled with clear serum. There was no local lesion. The mucous membrane of the air-passages was reddened. On the right side there were extensive pleural adhesions, and slighter adhesions on the left side. In the apex of each lung were black pigmented radiating scars. The pulmonary tissue was elsewhere somewhat congested and œdematous. The bronchial glands were indurated and filled with black pigment, and in one of them the right recurrent laryngeal nerve was embedded. The heart presented eccentric hypertrophy in all parts, especially in the left ventricle. The muscular substance was pale and friable. The endocardium was thickened and opaque in some parts of the left ventricle. The tricuspid, mitral, and pulmonary valves were normal; the aortic valves were shrivelled, thickened, and calcified at the base, so as to be manifestly incompetent; the size of the orifice was also diminished. The aorta was somewhat dilated, and presented atheromatous and calcareous degeneration. The coronary arteries were atheromatous and calcified, and their orifices narrowed. The liver was small and pale, and in the gall-bladder were two calculi. The spleen was enlarged and dense; the kidneys small and slightly granular, with a small calculus in the right. The alimentary canal was normal, but there were two inguinal and an umbilical hernia.

POISONING BY MISADVENTURE.

INSTANCES of accidental poisoning of children are more frequent in the metropolis than perhaps we are inclined to think. The fact is that the responsible guardians of children do not exercise sufficient care, or do not possess enough intelligence, to avoid placing, within the reach of the young, medicines containing ingredients which are poisonous. Some of these, as the liniments of belladonna and opium, are highly dangerous, and have been the cause of many a fatal case of "poisoning by misadventure." Carbolic acid and oxalic acid, and other colourless solutions, are as often swallowed innocently as with deliberate intent; and it would be easy to increase the catalogue. That these remarks are called for is evident. Within the past week in one parish three cases of such accidental poisoning have occurred. It is, therefore, necessary to urge those who prescribe such remedies to the poor to impress on the minds of the overworked mothers of poor families the risk they run in leaving medicines within reach of their children. One of the cases to which we allude proved fatal. It was that of a girl five and a half years old, who in her mother's absence drank some nitric acid which she had found in the room of a lodger. She was taken to St. Mary's Hospital in an insensible condition, with her lips and mouth much charred; but she died on the following morning, and the coroner's jury returned a verdict of death from misadventure. The other two cases were admitted into the Middlesex Hospital last Saturday, within a few hours of each other. In the one the child, a little girl two and a half years of age, had taken up a bottle of cough mixture and swallowed about five drachms of it. The bottle contained compound tincture of camphor, and had been prescribed for an adult in drachm doses. It was labelled by the chemist, "Not to be given to children." Shortly after taking it the child fell into a somnolent state, and, although she vomited three-quarters of an hour after, became deeply narcotised. She was admitted into the hospital in a state of collapse and coma, but by dint of the usual measures of stimulation, &c., pursued through the night, she rallied completely. The third case is more instructive still. A solution of atropine had been prescribed for dropping into a child's eye. The mother had poured some of this into a glass, and left it within reach of another daughter eight years old, who used the glass for mixing some sherbet in. The mother returning, and finding what had happened, sent for a medical man, who administered an emetic about half an hour after the occurrence, but without effect. It was not until six hours later that the signs of poisoning were developed. The child had then become delirious and excited, and was brought to the hospital. She remained throughout the night in a state of great delirium, with widely dilated pupils, but in the course of the next day the symptoms passed off, vomiting occurring both then and on the following day, as well as great thirst. A somewhat parallel case to the last occurred at the same hospital a few months ago. A child had taken about a drachm of an embrocation composed of half a drachm of belladonna and an ounce of glycerine. He became very drowsy and restless, and was admitted with dilated pupils, congested face, and involuntary movements, and became violently delirious two hours later. Emetics failing, the stomach-pump was used, and some castor oil was forcibly given. He recovered within twenty-four hours. Such accidents are of course not limited to children. There was another case in the Middlesex Hospital a few weeks back, where a woman, fifty-seven years old, swallowed by mistake one ounce of a lotion containing about one-sixth of a grain of atropia, and although the stomach-pump was freely used within a few minutes of her taking it, as she had the good sense to run to the hospital directly she discovered her mistake, yet she gradually began to show the symptoms of poisoning, the pupils dilating, her throat becoming dry, the pulse quickening, and delirium supervening four hours after. In this case morphia was administered hypodermically, and she recovered completely within two days.

INTERNATIONAL MEDICAL CONGRESS.

THE Hon. Secretary-General continues to receive notices of intention to attend the forthcoming meeting of the Congress, both from at home and abroad, in most encouraging numbers. Among others the following important delegates have been formally appointed. By the German Empress, Prof. Küster; by the King of Spain, Dr. Don Nicasio de Landa and Dr. Ferrada; by the King of the Netherlands, Dr. Snellen and Dr. Guye; by the War Department of the Prussian Government, Generalartz Dr. Coler, Generalartz Dr. Roth, and Oberstabsartz Dr. Starke; by the War Department of the United States Government, Dr. Billings; by the War Department of the Government of Norway, Dr. C. Smith; by the Austrian Government, Dr. R. Schnitzler; by the Bavarian Government, Prof. Ranke; by the Belgian Government, Dr. Pigeolet; by the Swiss Confederation, Dr. Joël; and from Rome, Signor Baccelli, the Minister of Public Instruction, will attend. Prof. Virchow has intimated his intention of being present. The duty of unveiling the Harvey Memorial at Folkestone, on Saturday, August 5th, has been entrusted to Prof. Owen, who will, doubtless, discharge this welcome duty to the entire satisfaction of the profession, and in a manner worthy of the great physiologist, in whose honour the statue is erected. The Corporation of the City of London has decided to entertain the members of the Congress at a conversazione in the Guildhall.

THE "MURDER" OF THE EX-SULTAN.

IN our issue of June 10th, 1876, we discussed the evidence which was submitted to a jury of nineteen physicians, and held by them to show that the death of the ex-Sultan was caused by an act of suicide. We considered the evidence adduced inconclusive, and the inference drawn hasty and untenable. As plainly as it appeared at the time judicious to do so, we protested against the decision at which the jury had arrived, while obliged to confess "we have no special claim, as a professional organ, to offer an opinion as to general considerations which seem to make the hypothesis propounded untenable." It was on medical grounds we questioned the probability of suicide. No good would result from reproducing the arguments by which we contended that the report of the nineteen physicians was not of a nature to convince professional readers. We conjectured that "probably the meagre and halting character of this (second) 'official' statement might be explained by the circumstance that it was drawn up and signed under a heavy pressure of responsibility, and with a foregone conclusion and set purpose in view"; and we concluded that the declaration would have little authority in England, "however tamely the story of suicide might be accepted in Turkey." We were alone in our opinion in 1876, but five years afterwards it turns out we were right, and the murderers of Abdul Aziz have been brought to justice. It would be well if equally swift avengement visited the crimes committed in England! It is, perhaps, ungracious to blame the experts who reported on the death of the Sultan; they probably exercised a judgment as free as any that can be expected in Turkey, particularly at a time so troublous as that in which the ex-Sultan was murdered. It is not for us to point the political or social moral of the crime thus committed against an individual and a State by men who should have been the guardians of public order; but we must be permitted to say that it indicates a strange lack of professional independence when a jury composed mainly of foreign physicians

and surgeons can be so intimidated as to serve a party in power by such a judgment as was given in this case. It would be an insult to the intelligence of the medical men concerned to assume they were satisfied with the decision at which they arrived, or were prepared in their scientific consciences to endorse the "statement" they too compliantly signed.

INDIAN MEDICAL SERVICE.

THE scheme of retirement for the Medical Officers of the Indian Service, which was sent out from the India Office in the middle of April, has been published by the Governor-General, and is to take effect from the 1st of January last. The pensions are not regulated according to rank, with an exception to be presently noticed, but by length of full pay service. It is, consequently, impossible to compare them exactly with the rates of retired pay granted to the officers of the Army Medical Department; but they seem to have been calculated on a liberal scale. The shortest period of service which entitles an officer to pension is seventeen years, but should he before completing that period be unfit to return to duty after two years' leave of absence on medical certificate, he will receive temporary or permanent half pay, at "the British rate of half-pay of the relative rank held by him." After seventeen years' service a pension will be granted him of £292 per annum; no permanent pension is given in the Army Medical Department under twenty years. After twenty years the pension will be the same as that of a Surgeon-Major, £365; after twenty-five years it will be £500 a year, or equal to that of a Brigade-Surgeon under thirty years' service; and after thirty years it will be £700 a year, or more than £60 a year above that of a Deputy Surgeon-General in the Army Medical Department. The exception to which we alluded above is in the administrative ranks; a Deputy Surgeon-General, who has served five years as such, will receive an addition of £250 a year, and a Surgeon-General of £350 a year, to the pension to which he would be otherwise entitled by his length of service. These rates of pension, especially for the administrative ranks, are very liberal, and will, no doubt, tend to restore the Indian Medical Department to its position as the favourite branch of the public service with the medical students. But there is still something wanting to remove just cause of discontent on the part of the officers composing it. We trust the authorities will, without delay, put an end to the system of allowing medical officers to refuse promotion with a view to retain lucrative civil appointments and afterwards receive it when it suits their convenience. Either an officer should be compelled to accept promotion when offered, or, if permitted to refuse it, should be deemed ineligible for ever after. But it would be still better, we think, if, under such circumstances, he were at once placed on the pension list. Another grievance requiring redress is the system of keeping officers actively employed on "unemployed pay." The system of allowances requires a complete revision; for it appears only fair that the officer actually in charge and doing the duty should draw the full allowance, and not an officer who, for any reason, is absent from the station or corps, and cannot therefore be responsible for the duties on account of which the allowance is granted. This principle is carried out as regards "charge money" in the Army Medical Department, and we see no good reason why it should not be applied to the Indian. The question of a fair share of honours and decorations for the Indian medical officers has also been brought prominently forward in connexion with the late Afghan War, and is certainly one well deserving the attention of the Secretary of State for India. The removal of these grievances would doubtless prove highly beneficial to the Service, and would tend to promote a steady influx into it of highly educated gentlemen.

SEATS FOR SHOPWOMEN.

THE practical common sense and philanthropy of the people of the United States have outrun the same qualities exhibited by public opinion on this side the Atlantic. The principal States of America have enacted statutes compelling the keepers of shops to provide seats for the young persons serving behind their counters. In England we are content to talk and write about the necessity of a similar measure for the coercion of our own tradesmen, but we are not prepared to do anything more. It has been abundantly proved that irreparable disease and injury are caused by long standing, and it has been shown that seats might be provided and generally used without the least degree interfering with the business arrangements of the largest retail establishments; but the leading firms in London stoutly hold out against entreaty and remonstrance, and Englishwomen have not the unselfishness to insist—as they might insist—on the provision of seats, and, what is more to the point, their use by counter-servers. We can be humane on paper and in print. We are even prepared to make our humanity the excuse for pleasant meetings, and the formation of agreeable associations for the promotion of the object desired, but we are not prepared, and we would not on any account consent, to avoid shops where seats are not provided. It is idle to hope that our Legislature, over-burdened as it is with "domestic" legislation, and resolutely engaged in a persistent sport with "burning questions," will, at an early date, find time to deal with a subject of this calibre. It is vain to appeal to the good sense of the women of England. Such being the position of matters, the question of "Seats for Shopwomen" will, doubtless, continue to drift. Meanwhile it is only just to acknowledge that they manage these matters better in America, and that the energy of social reformers in the New World exceeds that of those who profess to see and feel with them in the Old.

"THE LANCET" MAP OF MEDICAL LONDON.

IN connexion with the paper of Dr. Mouat on Hospitals, we intend to publish on the 16th of July "THE LANCET Map of Medical London in 1881," showing the exact position within the registration area of the metropolis of every hospital in it. This Map has been prepared with considerable care, and will show our foreign guests the resources at present at our command in dealing in medical institutions with the indoor treatment of disease and accidents in the largest city in the world. The information conveyed by it, aided by our explanatory index, will come as a surprise to them, and to many among ourselves, its ultimate object being to show the urgent need of some redistribution of the medical relief of the poor of London and its surroundings.

SYMMETRICAL VASO-MOTOR ACTION.

MOST physiologists admit that, according to the researches of Brown-Séquard and Tholozan, if a contraction or dilatation of the small vessels is produced in one part of the body, a similar constriction or dilatation is caused at the corresponding point on the other side. The question has been re-examined by MM. Trissier and Kaufmann in the laboratory of Chauveau at Lyons, and the interesting fact has been ascertained that, although the phenomena occur, as above stated, in the majority of cases, there are exceptions in which the second event is the reverse of the first—in which, for instance, a dilatation of the vessels on one side is accompanied by a constriction on the other, and *vice versâ*. The experiments were made upon large-sized dogs. The femoral arteries were tied at the lower end, and into each was introduced one of the upper limbs of a Y-shaped tube, another limb of which was introduced into a sphygmoscope, with which

either femoral could be placed in connexion, so as to obtain traces exactly comparable. A vessel filled with cold water was applied alternately to one or the other pair and the effect on each limb registered. At the commencement of the experiment, before the animal became exhausted, the results corresponded perfectly with those obtained by Brown-Séquard and Tholozan; cold caused the pressure to rise in each femoral artery. After a certain time, however, the opposite result was obtained. Cold caused a rise of pressure in the vessels of the limb to which it was applied, but a fall of pressure in the other limb, and *vice versâ* with hot water. Anæsthesia by means of chloral had no effect on the phenomena. In another series of experiments, in which the pressure in the carotid was simultaneously observed, it was demonstrated that the effects were purely local, independent of any effect on the general vaso-motor system. This interesting result seems to have an important bearing on the changes in vascularity and temperature observed in the remarkable phenomena of *transfert*.

THE VICTORIA CROSS.

THE *London Gazette* of Tuesday contains the announcement that the Queen has been graciously pleased to signify her intention to confer the decoration of the Victoria Cross upon Surgeon John Frederick M'Crea, of the 1st Regiment Cape Mounted Yeomanry, whose claim has been submitted for Her Majesty's approval, for his conspicuous bravery in South Africa, as recorded against his name. The act of heroism for which Mr. M'Crea was recommended is described as follows:—"For his conspicuous bravery during the severely contested engagement with the Basutos on the 14th of January, 1881, at Tweefontein, near Thaba Tsen, when, after the enemy had charged the Burghers in the most determined manner, forcing them to retire with a loss of sixteen killed and twenty-one wounded, Surgeon M'Crea went out for some distance, under a heavy fire, and, with the assistance of Captain Buxton of the Mafeteng Contingent, conveyed a wounded Burgher named Aircamp to the shelter of a large ant-heap, and having placed him in a position of safety returned to the ambulance for a stretcher. While on his way thither Surgeon M'Crea was severely wounded in the right breast by a bullet, notwithstanding which, he continued to perform his duties at the ambulance, and again assisted to bring in several wounded men, continuing afterwards to attend the wounded during the remainder of the day, and scarcely taking time to dress his own wound, which he was obliged to do himself, there being no other medical officer in the field. Had it not been for this gallantry and devotion to his duty on the part of Surgeon M'Crea, the sufferings of the wounded would undoubtedly have been much aggravated, and greater loss of life might very probably have ensued."

BATRACHIAN REFLEXES.

IF the leg or sciatic nerve of a frog is stimulated by electricity, movements of defence, flight, &c., are produced, which have a voluntary aspect; but M. Ch. Richet has found that they occur when the cerebral hemispheres are removed, the medulla oblongata being left. Hence it is probable that they are complex reflex acts. They are quite different from the simpler purposive actions which occur when the medulla oblongata has been removed. The latent period for the movements is remarkably long, never less than ·15 second, very often half a second, and sometimes ten seconds. It is thus far greater than in the case of the direct stimulation of the brain of the frog, which Exner found to amount to only ·05 second. In a series of stimulations, at intervals of one minute, there is first a gradual increase of excitability, shown by a diminution in the latent period; then follows fatigue, with an increase in the latent period; and finally comes exhaustion, in which the stimulus is followed by no response. These events render the phenomena complex; but as a rule, as with other reflexes, the action is proportioned to the intensity of the stimulation.

CABDRIVERS' WHIPS.

BEFORE a really great and grave "accident" occurs it may be well to caution the drivers of cabs, and particularly of hansoms, that care should be taken to avoid inflicting injuries by the recoil of their whips on the faces of their fares or those of pedestrians who happen to be crossing the roadway or standing at a street corner. Cases of gross carelessness or clumsiness in the use of the whip are, unfortunately, not infrequent. It is doubtless often provoking, and occasionally difficult, to drive a horse of the class let out on hire to cabdrivers, but this offers no sufficient excuse for the habit of recklessly flourishing a formidable weapon to the danger and detriment of the faces and eyes of the public. Cabdrivers seem to think the roads are made for them, and revel in the annoyance of those who do not at the moment require their services. If a man or woman is seen to be hurrying across a road, the passing cabdriver enjoys nothing more than starting his horse, or pulling him up, as may seem most likely to scare and imperil the pedestrian. What with dashing round corners, making a set at foot passengers, and flipping their whips in the faces of fares and casual passers-by, the drivers of cabs contrive to secure a great deal of sport at the expense of the community. It may, we say, be well to caution them that the long-suffering public will not be slow to take its revenge when opportunity offers.

THE PLOMESGATE GUARDIANS AND THEIR MEDICAL OFFICER.

IN the case of Mr. Hele, the medical officer to the Plomesgate Union, we are pleased to find that as the result of the question put in the House of Commons on June 23rd by Mr. Firth to the President of the Local Government Board, reported in our last issue, such pressure has been brought to bear upon the Plomesgate Board of Guardians that they have been induced to pay the fee for the amputation which has been the subject of dispute between that Board and their medical officer. As the board of guardians had not given reasons why they refused payment in the first instance, we are unable to determine whether they disputed the validity of the overseer's order or the propriety of the operation itself. In reference to the first point, however, we are in a position to know that the Central Board distinctly recognise the power of an overseer to grant an order. It is right to state that this satisfactory conclusion of the dispute has been brought about through the agency of the Poor-law Medical Officers' Association, whose assistance was sought and obtained by Mr. Hele.

MEDICO-LEGAL QUESTIONS IN PARLIAMENT.

THE Coroners (Ireland) Bill has been read a third time in the House of Commons. The Medical Bill of Mr. Hardcastle has wisely been withdrawn. There was no chance of its being entertained under existing circumstances. Though in its main features it was not unworthy of consideration, it contained some very crude clauses. Dr. Cameron's proposal to censure the Local Government Board has had to be withdrawn, from consideration of the exigencies of Parliamentary time and business, so that the huge epidemic wave which is passing over will have very much its own way, and the stable, as is usual in matters of public health, will not be locked, at any rate until the horse is stolen.

AN AMERICAN LEECH FARM.

AN article in the *Scientific American* describes a leech farm in Long Island, founded in 1841 by a Mr. H. Witte. It covers thirteen acres, and is the only one in America. The breeding ponds are oblong, and each is an acre and a half in extent. The bottoms are of clay, the margins of peat, in which the leeches lay their eggs in June. The eggs are deposited in "cocoons," of a gelatinous material, at first frothy, but which becomes firmer and more glue-like after the eggs are deposited. From each cocoon thirteen to twenty-seven young leeches are developed, and issue from the cocoons in September, being hatched by the heat of the sun. At first they are no thicker than a pin, but even then are capable of cutting through the skin of a horse. They are not ready for the market until three years old. The leeches are fed once in six months on blood placed in linen bags. Sometimes a year will elapse before a full meal is entirely digested. This method of feeding certainly seems more humane than that adopted by a leech farmer at the foot of the Harz mountains, who was accustomed to hire men at sixpence a day to stand in the water for half an hour daily, so that the leeches might have a full meal of human blood. The greatest enemies to young leeches are water rats and shrews. A high temperature kills them, but they may be frozen in ice, and if thawed gently be found uninjured. Mr. Witte's sales average a thousand leeches a day. About thirty thousand are imported into the United States every year. The Western States and California are the heaviest buyers. In the Eastern and Southern States the demand has fallen off of late years.

THE ROLLESTON MEMORIAL.

TO promote the above object, a general meeting of the friends and pupils of the late Professor Rolleston will be held at the house of Dr. Shepherd, 17, Great Cumberland-place, Hyde-park, W., on Wednesday, July 6th, at 3 P.M. The Hon. Secretaries are C. W. Maasell Moullin, M.B.; Theodore Dyke Acland, M.A., M.B.; C. B. Poulton, M.A.; and A. P. Thomas, M.A.

DEATH OF PROFESSOR REYNAUD.

WE regret to learn, by telegram, that Professor Reynaud died suddenly at Paris on Thursday last.

THE Massachusetts Medical Society has just been holding its centennial anniversary at Boston, when an address was delivered by Dr. Samuel Green, and one by Dr. Collis Warren. The *Boston Medical and Surgical Journal* for June 8th is wholly devoted to this celebration, and contains not only portions of Dr. Green's address, but many articles, extracts, and facsimile reproductions of antiquarian interest illustrative of the period when the Society was first established. It reproduces a memoir of the venerable founder of the Society, Dr. Edwin Augustus Holyoke, who died in 1829 at the age of one hundred years, and a silhouette of him appears as a frontispiece to the journal, with a facsimile of the toast, "The Massachusetts Medical Society," written out by himself at the public dinner given in his honour by the Faculty of Boston, Salem and vicinity, on his centennial birthday, Aug. 13th, 1828. The whole number is very interesting, and is an admirable instance of journalistic enterprise.

WE are glad to hear that the Committee of the Bristol General Hospital has decided to floor one of the wards of the hospital with wood.

IT may be of interest to our readers to learn that the founder of the noble family of Wicklow was a physician, Dr. Ralph Howard was M.D. and Regius Professor of Physic of the University of Dublin, and a Fellow of the College of Physicians. He purchased the Shelton estate, still the residence of the family. The second son of Dr. Howard, who succeeded him in the property, was Bishop of Killala, and subsequently of Elphin. The bishop's son was created Viscount Wicklow. A daughter of Dr. Howard married Sir Thomas Molyneux, Bart., Regius Professor of Physic, who was a younger brother of William, the celebrated philosopher.

WE regret to announce the death on the 2nd ult., at Cape Coast Castle, West Coast of Africa, of Surgeon John Bower Wilson, M.D., of the Army Medical Service. Dr. Wilson entered the army in April, 1871, and had served in India and the Cape. He volunteered for the Gold Coast in March last when an increase of the force stationed there was determined on in view of an Ashantee War, and succumbed to the fever of that deadly climate, after a residence of barely three months. Dr. Wilson was unmarried.

THE Medical Acts Commission met at 2, Victoria-street, Westminster, on the 24th, 25th, and 27th June. The evidence of Dr. A. H. Jacob, Dr. Glover, and Dr. R. Scott Orr was taken. Present—The Earl of Camperdown (Chairman), the Bishop of Peterborough, the Right Hon. W. H. F. Cogan, the Master of the Rolls, the Right Hon. G. Sclater-Booth, M.P., Sir William Jenner, Mr. Simon, C.B., Professor Huxley, Dr. McDonnell, Professor Turner, Mr. Bryce, M.P., and Mr. John White (Secretary).

THE death is announced of Dr. James Paterson, formerly lecturer on Midwifery at Anderson's University. Dr. Paterson obtained the C.M. Glasg. degree in 1834, the M.D. two years subsequently, and the Fellowship of the Faculty of Physicians and Surgeons in 1841. He resigned the midwifery chair at the University eighteen years ago, and had from failing health gradually withdrawn almost entirely from practice.

THE President of the Harveian Society gave a conversazione at the South Kensington Museum on Wednesday last, June 29th, which was numerously attended. In addition to the many attractions of the museum, which was well lighted by electric lamps, the Hungarian band, the band of the Grenadier Guards, and some vocalists greatly contributed to the success of the evening by excellent music.

OWING to a severe domestic bereavement, Mr. Cadge will be unable to take the chair at the annual festival of the Fellows of the College of Surgeons on the 7th instant; his distinguished townsman, Mr. Thomas Crosse, has been invited and consented to take his place.

SANITARY INSTITUTE OF GREAT BRITAIN.—At the ordinary meeting, held at 9, Conduit-street, on June 21st, Dr. A. Carpenter in the chair, a paper was read by Professor W. H. Corfield on "The Present State of the Sewage Question," in which the author discussed the systems of sewage removal and treatment at present in use under the two heads of Conservancy Systems and Water Carriage. Filtration through soil and wide irrigation were also treated at some length, and the results obtained by them described. In the discussion which followed, Mr. W. C. Sillar, Mr. E F. Bailey-Denton, Mr. Douglas-Onslow, Mr. R. W. P. Birch, Mr. G. B. Jerram, and Mr. Wilson Grindle took part. The Chairman made a few remarks relative to the successful working of the sewage farm at Croydon, and Professor Corfield replied briefly to some of the points raised in the discussion.

INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

THE committee engaged in organising the exhibition to be held at South Kensington on and after July 16th, have agreed to set apart a considerable space for the purpose of illustrating the various appliances in ordinary use for the treatment of the sick at the chief London hospitals. Their request to exhibit a bed with its full equipment of ward furniture, along with splints and other apparatus in common use for fractured limbs at each hospital, has been readily acceded to by the governing committees of the twelve hospitals associated with medical schools, as well as by the Medical Departments of the Army and Navy and Local Government Board. It was felt that although the surgical appliances could be best shown on the living model, it would have been unwise to introduce such in a miscellaneous exhibition, and considerable difficulty has been experienced in providing efficient substitutes since lay figures are expensive and unobtainable in sufficient number from commercial sources; while, the papier-mâché figures in common use by costume makers are jointless and otherwise ill-adapted for the purpose indicated. This difficulty has been surmounted in consequence of an appeal which has been made to members of the Royal Academy for the loan of their lay figures during the time the exhibition is open. Sir F. Leighton, Messrs. Millais, Calderon, Frith, Leslie, Yeames, &c., in fact all the leading academicians have responded so readily to the request made to them, that the number of patients at the present time considerably exceeds the number of beds at the disposal of the Committee. It is proposed to have the hospital appliances arranged in saloons in the Albert Hall, contiguous to and in direct communication with the exhibition buildings; and it may be confidently predicted that the department which will possess a scientific and humanitarian interest, apart altogether from the speculative character of the rest of the exhibition, will prove especially attractive to foreign and country visitors, who will thus have an opportunity of seeing within a small compass what is done at the best hospitals without having to make a tour of the metropolis.

It has been definitely arranged that Earl Spencer, the Lord President of the Council, is to publicly open the exhibition on the 16th inst., at 4.30 P.M. Invitations are being issued to persons holding official positions, to the officers of the International Medical Congress, and others, who are prominently connected with medicine or sanitary science. All holders of season tickets will also be admitted to the opening ceremony. The large lithographed plans, which have been issued during the past week, give some idea of the proportions which the exhibition has assumed. The frontage occupied considerably exceeds half a mile, and the exact position of every exhibitor is accurately shown upon the plan, so that it is hoped there will be a minimum amount of confusion in getting the exhibits into position. Everything is to be in its place by the evening of Wednesday, the 13th; and on the two following days the judges will make their examination of the exhibits. We understand that the catalogue is now going to press, and it is confidently hoped that, by the opening day, everything will be in thorough order.

THE NEW ST. MARYLEBONE INFIRMARY.

THE new infirmary for the sick poor of the St. Marylebone Union, the construction and arrangements of which were fully described in our columns last week, was opened on the 29th ult. by the Prince and Princess of Wales. His Royal Highness having declared the infirmary open, the party made the tour of the wards, to which already some patients had been transferred from the "house" in Marylebone-road, where some 2300 persons have hitherto been located. One of the male wards was named "Alexandra" by the Princess of Wales, and one of the female wards "Albert Edward" by the Prince of Wales. Before leaving the building the Prince of Wales expressed his pleasure at seeing some of the results of the thoughtful and painstaking interest of Mr. Boulnois and his brother guardians, after many years of devoted labour.

"THE LANCET" INQUIRY UPON SCHOOL MANAGEMENT AND HYGIENE.

PRELIMINARY REPORT.—PART I.

BEFORE entering on the main question of the manner in which schools should be managed with due attention to the health of the pupils, it was deemed desirable that some attempt be made to glean information concerning the present condition of schools throughout the country upon various important points relating to this question. Accordingly, last year circulars containing a series of questions were addressed to the heads of *public* and private schools, in the hope of eliciting much useful information. The questions embodied in this circular were as follow:—

1. How many boarders have you, and what are their ages, generally?

2. Were the premises now appropriated as a school-house built for that purpose, or adapted? What is the nature of the ground on which the building stands? Describe the locality, and give particulars as to the climatic conditions.

3. What cubic air-space is allowed to each sleeper in the dormitories or bedrooms?

4. What is the size of the apartment used as a school-room, and how much cubic air-space is there for each pupil?

5. What is the ordinary diet, as to the quantity and kind of food, and how are the meals distributed?

6. What time is spent in school-work, and what hours are devoted *wholly to play?* State the hours of retiring to bed and of rising, and mention the arrangements for visiting the sleeping apartments at unexpected times.

7. What cases of illness occurred in the school during the years 1878-9, and what has been the general state of health in the establishment? If any epidemic disease has visited the school, please state the circumstances.

8. What are the sanitary arrangements of the establishment as regards drainage, closets, lavatories, bathing, towels, brushes, &c. &c.?

9. What provision is made for the isolation of cases of infectious or contagious disease in the event of a *sudden* attack?

10. What system of medical inspection is adopted? Does a medical man systematically visit the establishment, or does the "doctor" only attend when called in to treat a case of sickness?

The answers we have received are satisfactory in one point of view, as they show that the subject receives a degree of attention that a few years ago would have been deemed unnecessary. We are also gratified to find that many of those to whom our questions were addressed are not only ready to communicate their experience, but express a desire for assistance and fuller information on the subject, and we take this opportunity of thanking those gentlemen who have so courteously, readily, and fully responded to the circular we addressed to them. The answers to the questions we submitted must have cost no inconsiderable amount of time and labour to draw up, and we feel deeply indebted to them for the trouble they have taken in the matter. We hope that they will continue their kind offices still further by offering any suggestions that may occur to them while the work is proceeding, and by pointing out omissions and shortcomings of which in dealing with this intricate and difficult problem we are ourselves only too conscious.

In the present preliminary report, an analysis of these replies is undertaken, thirty-nine schools being selected, including schools of various sizes in all parts of the kingdom. As a matter of convenience the substance of the information thus gleaned has been drawn up in a tabular form, the schools being classed in four divisions, according to the number of pupils—viz.: I. More than 100. II. Between 50 and 100. III. Between 20 and 50. And IV. Less than 20. A glance through the table (A) gives an idea of the accommodation, sanitary and other provisions obtaining at these schools (although in some cases the information is very deficient), and it is based upon the replies to the queries 1, 2, 3, 4, 8, 7, 9, and 10, in the above circular. The remaining subjects—viz., the time allotted to work and recreation, and the regulation of food—will be taken in the second part of this report.

TABLE A.

I. — SCHOOLS WITH MORE THAN 100 RESIDENT PUPILS.

No.	Boarders. Number.	Boarders. Ages.	Locality of School.	Sleeping Accommodation; Cubic Space.	School-rooms, &c.	Lavatories, Drains, &c.	Cases of Illness, 1878-9; Epidemic Disease.	Provisions for Isolation.	Medical Supervision.
1	300	11—19	DORSET. On oolitic limestone; dry climate, not bleak nor relaxing; built for purpose; quadrangle; four courts.	7 boarding-houses & a school-house (containing 84); 500 cubic feet per sleeper, as regulation, but often more than this; every room contains 4 boys.	School-room 84 by 26 feet; separate class-rooms; in school house a library, day-room, and 33 studios, apart from dormitories.	W.C. and urinal in courtyard; special water-supply and drainage; W.Cs. for night use in houses; drainage into town; lavatory; bathing-place in summer; separate towels, brushes, &c.	Slight outbreaks of measles, varicella, and roseola; once 3 cases of scarlet fever.	A detached sanatorium to every house; a new one for the whole school is projected.	Medical man called in when required to each house; annual sanitary inspection.
2	215	8—18	SURREY. On the Downs; built for purpose.	No information.	No information.	No information.	No information.	A special infirmary.	A college medical officer.
3	170	10—19	MIDDLESEX. 400 feet above sea level; built for purpose; soil gravel and loam.	600 cubic feet.	Many well-ventilated class-rooms.	Drainage perfect; swimming-bath.	None serious, and always clearly imported.	Sanatorium 200 yards from main buildings.	Systematic daily visits.
4	160	8—19	STAFFORDSHIRE. 600 feet above sea level; red sandstone; moderate climate; built for purpose.	Unlimited, as there is accommodation for 400.	Class-rooms averaging about 22 by 24 by 16 feet, for a class of from 10 to 22 boys; covered play-room for wet weather.	Good fall for drainage; drains carried underground for 200 yards, and sewage utilised; W.Cs.; lavatories separate from dormitories; bath-room; baths weekly; summer bathing-place; separate towels, brushes, &c.	1 case of scarlet fever, contracted outside.	Detached infirmary, with resident nurse.	Systematic.
5	143	11—19	KENT. 6 houses on high situation, built for purpose; outside town; clay and sand; mild climate.	Size varies in different houses; from 500 to 1300 cubic feet.	12 rooms, with ample space.	Good drainage.	2 cases of measles in 1880; ophthalmia; 5 or 6 cases of pneumonia in 1878.	Infirmary in school house.	Called in when required.
6	127	(†)	KENT. 3 houses, 2 built for purpose, 1 adapted; chalk and sand.	10 to 12 boys in each room, with 900 to 500 cubic feet for each.	Class-rooms large and well ventilated.	From 2 houses drainage into cesspool in orchard; from other into town; drains ventilated; lavatory; separate wash-stands; open-air bathing-place; regular gymnastics.	12 cases of measles in 1879.	A new sanatorium, with trained nurses; a special house for scarlet fever (3 cases in 14 years); sick-rooms in college for slight ailments.	Called in.
7	114	8—18	SUSSEX. On coast; built for purpose; 11½ acres; chalk; bracing.	Corridors in free communication with dormitories; 500 cub. feet.	Large school-room and 5 class-rooms; school-room 65 by 21 by 31 feet; one class room 45 by 28 by 14 feet; two, 21 by 16 by 12 feet; one, 20 by 16 by 10 feet; one, 18 by 16 by 10 feet.	Drainage perfect; detached lavatories; in-door W.C. for night; drains ventilated.	Scarlet fever in 1879, after vacation; 5 cases.	A sanatorium of 4 wards.	Called in.
8	105	12—19	SCOTLAND (E. Coast). Separate house, adapted; 5 others built for purpose on gravel; low and liable to floods; difficult to drain; keen east winds.	Several bedrooms; 600 to 700 cubic feet.	7 rooms; two with 10,719 cubic feet, for about 25 boys, and occasionally for from 50 to 70; two, 6209 cubic feet, for about 23 boys; one, 7628 cubic feet, for about 9; and two, 3509 cubic feet, for from 6 to 9 boys.	Earth-closets (formerly a cesspool near house); washing in bedrooms; lavatory; separate towels and sea-bathing.	Scarlet fever, 9 cases; 1 or 2 slight epidemics of measles and varicella.	A sick-house.	Systematic daily.

II. — SCHOOLS WITH FROM 50 TO 100 RESIDENT PUPILS.

No.	Boarders. Number.	Boarders. Ages.	Locality of School.	Sleeping Accommodation; Cubic Space.	School-rooms, &c.	Lavatories, Drains, &c.	Measles, &c.	Separate room in	General supervision,

II. — Schools with from 50 to 100 Resident Pupils.

9	94	10—18	**Kent.** 8 houses, 1 adapted temporarily; chalk; coast.	No. 1 house: separate rooms; 720 cubic feet. No 2: from 8 to 3 in each. No. 3: to have 56 rooms, with 720 cub. feet for each sleeper.	Large hall for 100 boys; class-room for 60; in each house separate rooms for evening work and meals.	W.Cs. outside houses; drains from lavatories carried outside; swimming; cold baths in morning for those who wish; hot baths in houses once a week; separate towels.	Measles.	Separate room in boarding-house.	General supervision, but not regular visits unless required.
10	85	12—19	**Kent.** Built for purpose; inland; clay and chalk; low, damp, relaxing.	570 cubic feet; well-ventilated cubicals.	School-room gives about 180 cubic feet to each, but also class-rooms; studies for 4 boys, in which they sit after school hours.	W.Cs. in playground; a few at back of house after doors closed; 2 in house, for night; washstands in dormitory; day lavatory; cold baths every morning; warm twice a week; swimming in summer.	In March and April, 1878, 30 cases of mumps, also 2 cases of congestion of lungs; in March, 1879, 1 case of inflammation of lungs; 10 cases of measles, imported Feb. 1880.	Sanatorium half a mile in the country.	Called in.
11	80	9—18	**Berks.** Built for purpose; gravel.	1000 cubic feet.	Large hall, 50 by 20 by 18 ft.; 12 class-rooms, about 20 by 18 by 14 feet.	No information.	Scarlet fever, imported early in 1878.	Sanatorium in the grounds.	Systematic.
12	80	10—18	**Yorks.** Built for purpose; alluvial oil; in a high valley 600 ft. to 700 ft. above sea level.	854½ cubic feet.	Many large-sized school-rooms lately built; ventilated on the Tobin system, and warmed, like the boarding-houses, with hot-water pipes.	Drainage into town sewer; well ventilated; closet disconnected from houses; outside ones for day use; indoors for night; lavatory; 2 bath-rooms; hot bath once a week; river bathing in summer; separate towels, brushes, &c.	Feb. to April, 1880, 14 cases of scarlet fever, 1 fatal, believed to be traceable to a laundry which was imperfectly disinfected; mumps, October term to Christmas.	2 houses temporarily hired for the isolation of infectious cases.	Called in.
13	54	8—18	**Warwickshire.** Adapted; 60 rooms; red sandstone; 450 ft. above sea level; dry, bracing.	450 cubic feet; free ventilation.	5 class-rooms, 20 by 20 by 10 feet, with room for 10 to 15 pupils; i.e., 450 to 675 cubic feet per pupil.	W.Cs. on each floor; drainage into cesspool a furlong away; separate washstands, towels, brushes, &c.; lavatory; hot and cold baths; swimming.	No cases in 1878-79; in twenty years, twice measles, three times scarlatina (introduced), twice limited to one case.	Hospital at end of north front; isolation as soon as suspected.	Called in.
14	50	9—17	**Northamptonshire.** Built for purpose; gravel; high.	Ample space.	School-room 50 by 18 by 15 feet (about 150 cubic feet per boy); class-rooms in addition.	W.Cs. in charge of a man; lavatories; river bathing; separate towels and brushes.	4 cases of whooping-cough.	A sick-ward; no detached hospital.	Medical officer of local board of health is medical officer of school, which is under the management of 12 governors.

III. — Schools with from 20 to 50 Resident Pupils.

15	40	9—15	**Cheshire.** Partly built for purpose, partly adapted; sandy soil; faces west; mild climate.	2 large dormitories, 40 by 21 by 12 feet, for 18 boys (i.e., 560 cubic feet for each), and smaller rooms with 4 boys.	Large.	Outside closets; drainage under direction of sanitary inspector; separate towels and brushes.	1 case of peritonitis, and 1 of congestion of lungs; no epidemics.	Separate house as infirmary.	Called in.
16	30	7—14	**Sussex.** Side of hill, half a mile from sea; sheltd. from north; adapted; chalk.	Rooms, 23 by 17 by 12 feet, for 8 boys (i.e., 560 cubic feet).	2 school-rooms, 40 by 12 feet; 3 class-rooms.	Drainage perfect; air-shafts; 6 W.Cs.; urinal and lavatory not connected with drains, and supplied by special cistern; gymnasium; bathing in sea and swimming baths; separate towels, brushes, &c.	15 cases of measles in June, 1878; fever introduced by servant (who was removed), and contracted by 1 boy.	When the case of fever occurred, half of the school went home, the rest were isolated, and there was thorough disinfection; separate house.	Called in.
17	35	15—23	**Middlesex.** Adapted; clay and gravel.	1000 cubic feet; open windows.	Many class-rooms; 500 cubic feet; good ventilation.	Drainage good; W.Cs. indoors; washing in bedroom; separate brushes, towels, &c.	None.	Lodgings would be found at a distance.	No doctors.

TABLE A (*continued*).

III. — SCHOOLS WITH FROM 20 TO 50 RESIDENT PUPILS (*continued*).

No.	Boarders. Number.	Boarders. Ages.	Locality of School.	Sleeping Accommodation; Cubic Space.	School-rooms, &c.	Lavatories, Drains, &c.	Cases of Illness, 1878-9; Epidemic Disease.	Provisions for Isolation.	Medical Supervision.
18	34	10—18	NORFOLK. Partly built for purpose; gravel.	600 cubic feet, or, if all beds full, 500 cubic feet; cubicals.	School-room, 600 cubic feet per pupil; also class-rooms.	Drains connected with town; outdoor closets and lavatories; separate towels and brushes.	None.	A boy has been sent to hospital.	Called in.
19	28	9—17	KENT. Built for purpose in 1879; chalk; high ground.	900 cubic feet when full; doors never shut; hot and cold air shafts.	School-room, built for 80; never more than 30 in it; 3 well-ventilated class-rooms; Tobin's system.	Drains thoroughly ventilated and trapped; outside closets for day, inside for night uses; own towels and washstands; day lavatory; hot bath once a week, cold or tepid every morning.	In spring, 1880, 7 cases of measles, introduced by day scholars; rule against boys coming from infected houses.	Well-ventilated hospital; trained nurse.	Called in.
20	28	9—18	IRELAND. Built for purpose; improved 1875-76; on limestone hill, 64 feet above sea level; outside town.	2 dormitories; at present 1650 cubic feet, if full 900 cub. feet; ventilated.	In large room, 400 cubic feet if full, but seldom always occupied.	One W.C. in house joining waste-pipe of baths, and conveyed to tank 100 yards away, whence it flows down hill in open drain; other W.Cs. are pits, cleared at times; urinals separate; earth-closet at night; day lavatory; hot and cold baths; sea-bathing; own towels, &c.	Measles and rötheln in 1880; 1 case of pseudo-laryngitis, and 1 of ophthalmia in 1878-79.	Detached infirmary in garden; large room in main building for the rötheln cases.	Called in.
21	28	11—18	NORTHUMBERLAND. Built for purpose; clay; on hill; damp; bracing.	1336 cubic feet.	Class-rooms, of from 8530 to 5416 cubic feet, for about 25 boys; seven smaller rooms, from 4500 to 150 cubic feet.	Drains trapped; dry closets; 4 baths; separate towels and brushes.	Measles in 1878.	Large day and night sick-room, with bath-room and W.C.	Visits occasionally.
22	26	8—16	GLOUCESTERSHIRE. Adapted; rich loam, with gravel; mild; at times bracing.	420 cubic feet.	187 cubic feet.	Drains connected with town; W.Cs. outside and inside; lavatory; bath-room; separate washstands, towels, brushes, &c.	9 cases of rötheln.	Separate sanatorium.	Systematic.
23	25	Aver. 13 yrs.	WORCESTERSHIRE. Built for purpose.	3 dormitories, 18 by 15 feet each.	School-room, 30 by 15 feet.	Approved drainage; good closets, lavatories, baths, &c.	No cases.	At once removed.	Called in.
24	25	9—16½	MONMOUTHSHIRE. Adapted; high situation; limestone; mostly dry; cold in winter.	396 cubic feet in most crowded rooms.	School-room, 24 by 18 by 17 feet; 144 cubic feet per boy.	Well-drained; cesspools which at times are troublesome; baths weekly; separate washstands, towels, &c.	A doubtful case of scarlatina in 1878.	Spare bedroom for sick; also a cottage in grounds.	Called in.
25	25	9—15	SUSSEX. On coast; built for purpose; 300 ft. above sea level.	515 cubic feet; corridors in connexion with dormitories.	250 cubic eet; ventilated.	Drains have good fall, trapped; ventilating pipes to closets; separate cisterns for drinking-water; hot and cold water in lavatories; urinals; lavatories and W.C. in the two wings; baths; hot bath once a week; swimming bath; own towels, brushes, &c.	3 years ago, measles; 7 years ago, mumps.	Isolation in room at top of house, then removal to special house; a sanitary establishment in town, to which an annual subscription is paid.	Called in.
26	24	8—14	SUSSEX. On coast; chalk; high situation; bracing; built in 1878.	700 cubic feet.	3 rooms; largest 6000 cubic feet.	Sanitary arrangements under medical officer of health; perfect drainage; hot baths every week; day lavatory; own towels, brushes, &c.	None in 1878-79; in 1880, 8 or 9 cases of measles.	2 rooms with separate staircase.	Called in.
27	24	10—19	GLOUCESTERSHIRE. Adapted; oolitic; 600 ft. above sea level; sheltered north and east; dry and bracing.	600 cub. ft.; cubicles of 6 beds.	420 to 430 cubic feet.	W.Cs. are tanks, cleaned out three times a year; baths; swimming; separate towels, brushes, &c.	In 14 years twice measles and once whooping-cough.	Separate room isolated from the school building.	Called in.

			CAMBRIDGESHIRE.	Approved by Educa-	7 or 8 class-rooms.	Supervised by medical officer of	Scarlet fever, 2 cases	A sanatorium three-	Called in.

28	22	10—19	CAMBRIDGESHIRE. Adapted; centre of town; clay; moist climate.	Approved by Education Department.	7 or 8 class-rooms.	Supervised by medical officer of health; towels, &c., provided by boys.	Scarlet fever, 2 cases in 1879.	A sanatorium three-quarters of a mile from school.	Called in.
29	20	11—17	SHROPSHIRE. Rebuilt 1877; 450 ft. above sea level; above town.	600 cub. feet; 2 large dormitories.	6 class-rooms; largest, 22 by 24 feet; smallest, 14 by 20 feet; all 14 feet high.	Town drainage; outdoor closets; sinks and rain-water outside; no river bathing; hot baths once a week; morning cold bath optional.	1 case of measles.	Sick-room apart from boys' quarters.	Called in.
30	29	10—16	SURREY. Three-fourths built for purpose; in town; gravel and sand.	602 cubic feet.	166 cubic feet.	One W.C. in house; cesspool; fluid excreta into meadow; earth-closets 45 yards from house; day lavatories; river bathing; separate basins, towels, brushes, &c.	1 case of scarlet fever in 1878.	Small dormitory in wing, would be used if necessary; matron.	Called in.

IV. — SCHOOLS WITH LESS THAN 20 RESIDENT PUPILS.

31	17	9—17	Built for purpose in 1877; gravel; at junction of rivers, outside town; sheltered from east; bracing.	67 by 25 by 13 feet, for 24 sleepers—i.e., 960 cubic feet.	Same size as dormitory; will hold 90.	Drainage perfect; W.Cs., 3 in house and in court; lavatories; bath-room; towels, brushes, &c., separate.	No cases.	Special room.	Called in.
32	15	7—20	CHESHIRE. Built 1648; sandy; above sea level.	25 cubic yards.	School-room, 45 by 20 feet.	Well-drained; lavatory; bath-room; W.Cs. away from house; 1 in house for night.	No cases for 9 years.	Removed to part of house belonging to the family.	Called in.
33	15	10—18	HERTS. Built for purpose; chalk; hill-side; dry; bracing.	930 cubic feet, but half that when full.	School-room, 20 by 18 by 21 feet. Class-rooms: a, 18 by 15 by 11·6 feet; b, 17 by 13 by 11·6 feet. Thus, for 30 pupils—school-room, 476 cubic feet; and with class-rooms, 657 cubic feet.	No drains inside house; W.C. and earth-closet inside; 6 outside; 2 lavatories, with large baths; water from well in chalk; separate towels, brushes, &c.	1 case of rheumatic fever, and 1 of erythema nodosum.	A small bedroom and sitting-room reserved; cottage contemplated; one of the dormitories and lavatories could be isolated.	Called in; systematic visitation for a fixed stipend declined by medical man.
34	14	10—17	IRELAND (MID). Built for purpose; limestone; side of hill.	884 cubic feet; room for 30 beds in each dormitory; windows kept open.	School room, 27½ by 22 by 17 feet; with 30 boys, giving 690 cubic feet per boy.	Well-drained; privies outside; 1 W.C. in house; lavatory and bath-room.	No cases; 20 years ago 4 or 5 cases of scarlet fever, all isolated.	A well-ventilated infirmary room.	Called in.
35	14	8—15	DEVONSHIRE. Adapted; centre of town; gravel.	518 cubic feet.	256 cubic feet.	W.C. and urinals away from house; W.C. in house for night use; separate washing apparatus, towels, brushes, &c.	Typhoid in 1878; 1 case two weeks after return to school.	No means of isolation; sent home.	Called in.
36	14	7—16	NOTTS. Built for purpose on ridge of low hills; clay, gypsum, and limestone.	273½ cub. feet; other rooms with more cubic feet in proportion; good ventilation.	192 cubic feet; good ventilation.	Drains trapped; closets on old system; ventilating shaft; lavatories; bathing; separate towels and brushes.	2 cases of scarlet fever in 1879.	No distinct provision.	Called in.
37	12	8—18	ISLE OF WIGHT. Built in 1612; on outskirts of town; gravel and clay; mild.	450 cubic feet.	200 cubic feet (including day boys); good ventilation.	Drains outside building; syphon-trapped water, constant supply; lavatory; W.C., separate supply cistern; separate brushes and towels.	Sore-throat in 1879.	Separate room outside main building.	Called in.
38	12	7—16	BERKS. Built for purpose on gravel.	300 cubic feet.	232 cubic feet.	Good drainage; baths; separate towels, brushes, &c.	No cases.	No provision.	Called in.
39	7	10—14	DEVONSHIRE. Built for purpose in 1670; additions since; in a street of country town; slope of hill; mild.	450 cubic feet.	47·5 by 20·3 by 11 feet, equal to 10,450 cub. feet, or 348 cubic feet for each boy at present.	No drains under building; 1 closet in house; pipes outside; 2 out-door closets; lavatory; separate basins; bath-room; warm baths once a week.	No boarders till present term (1880).	Special room.	Called in.

The foregoing tables give in almost as small a compass as possible the chief facts elicited from our correspondents concerning the sanitary provisions in their schools; and these facts, being so diversely presented, do not admit of much further analysis. Still, in a report like the present it is necessary to direct attention to these facts by means of a summary, imperfect as this may be, and in spite of the difficulty of instituting comparisons between institutions so varied in their arrangements. Taking the points in order as they are set down under their respective headings, we observe that eight of the thirty-nine schools tabulated contain (or rather contained at the time the answers were completed) upwards of 100 boarders (Division I.); 5 had between 50 and 100 (Division II.); 16 between 20 and 50 (Division III.) and 9 fewer than 20. The ages of the pupils vary but little in range in any of these divisions, but the information supplied does not admit of any tabulation according to age. Thus it cannot be said how many are of the age of 8, 9, 10, &c. It can only be generally stated that the lowest age is 7 years, and the highest 23; this in a school where the youngest was 15 years old. In Division I. the mean range is between 9 and 19; in Division II. between 9½ and 18; in Division III. between 9½ and 17; and in Division IV. between 8½ and 16½.

The situation upon which the school buildings stand is of course most various, ranging from hillsides 600 ft. to 700 ft. above sea level to "low and damp" sites, some in the midst of provincial towns, others in open country, with more or less extensive grounds pertaining to the premises; but in fairness it must be added that the table does not show, after critical examination, such a relation between the more or less "bracing and healthy" sites, and the occurrence or lack of epidemic and other disease, as given in another column. It will be seen, also, that the buildings were constructed for the purpose in twenty-seven cases, partially rebuilt and adapted in four, and wholly adapted in eight.

The next column in the table refers to the dormitory arrangements, and especially the cubic space allotted to each sleeper, returns of which with more or less elaboration and exactitude have been made by thirty-five out of the thirty-nine correspondents. From these returns it will be seen that very considerable diversity exists. This diversity may partly be explained by the fact that the returns do not for the most part appear to have been calculated from the number of sleepers which the rooms are meant to accommodate, but from the number actually occupying them when the return was made. It is only by some such explanation that we can account for the fact that, in one school in Division I., it is said that the space at disposal in different dormitories varies from 500 to 1300 cubic feet per individual; or that in another, in Division III., as much as 1336 cubic feet is put down for each. Looking to the minimum figures as more accurately representing the state of things when the dormitories are full, we find them to be between 300 and 400 cubic feet, and in one only is it as low as 273 cubic feet. Or, if the average be taken from the returns in each division, we find this to be, in Division I., 520 cubic feet; in Division II., 720 cubic feet; in Division III., 700 cubic feet; and in Division IV., 600 cubic feet; but this average is necessarily made up from figures ranging from the lowest to the highest above given.

In like manner, it is not possible to deduce with perfect accuracy the cubic space which is reported in the various schools to be allotted in the school-rooms and class-rooms. Some of the returns make mention only of the size of the rooms, and not of the numbers occupying them, probably because these form a very varying quantity; such returns are obviously of no value, and can be taken no more into account than those which merely state the number of rooms or give the capacity in very general terms. A certain number have, however, been at the pains to calculate the cubic space per scholar; but even this information conveys less than it would were the methods and degree of ventilation also notified. For example, in school No. 8 there are seven rooms devoted to school purposes. Two of these rooms have each a capacity of 10,719 cubic feet, and are occupied by an average number of twenty-five boys—i.e., 430 cubic feet per boy; but occasionally as many as fifty or seventy meet in them. Two other rooms, of a capacity of 6209 cubic feet each, accommodate twenty-three boys, giving 270 cubic feet per boy. Another room is of 7628 cubic feet capacity and has only nine boys in it (or 847 cubic feet per boy), whilst the other two rooms, each of 3500 feet, accommodate six to eight boys (or 450 cubic feet each). Thus in this one school, according to these figures, we find in the various rooms the cubic space per head varying from 847 to 270 feet; and at times the largest rooms receive so many that less than 200 cubic feet is allotted. There does not then appear to be any fixed relation between the size of the room and the number of pupils habitually lodged; and without the compensating influence of ventilation, it is not possible to say whether the more crowded rooms are or are not in accordance with hygienic principles. It may be noted, however, that the regulation minimum space of the London School Board allows for 130 to 117 cubic feet per scholar—a figure which Dr. Parkes considered as much too low. None of the figures in our returns go so low as these, the lowest being 144 cubic feet per head and the highest 690 cubic feet. Five are below 200 cubic feet, four between 200 and 300, one between 300 and 400, two between 400 and 500, and two over 600. On the whole, it may be conceded that fairly ample provision is made.

The important subject of lavatory arrangements, drainage, &c., has received considerable attention; and some of the replies with which we are favoured are very full and explicit on these points. In a large proportion the day-closets and urinals are outside the house, in a courtyard or playground. In a few earth-closets are in vogue, but the great majority have water-closets. The drains are in some connected with the town-drainage, in others separate; and in a few cesspools obtain. With scarcely an exception we are informed that the drainage is "good" or "perfect," and it must be admitted that in none of these schools do we find any cases of illness recorded which could reasonably be attributed to faults in the drainage-system, although the system does not appear to be so "perfect" in all as might be wished. There is a solitary case of typhoid, and that appears to have been imported into the school, and no cases of diphtheria are given. There is not the least doubt, however, as is only too well known from signal examples occurring not so many years ago, that if more schools had favoured us with returns the result would have been different; and it is much to be regretted that we have been compelled to limit this analysis to so comparatively small a number of institutions. We can only deal, however, with what is before us, and must be content to abstain from drawing any deductions. A recapitulation of a few of the more noteworthy facts gleaned in this column will serve our purpose best. No. 4, "Good fall for drainage; drains carried underground for 200 yards, and sewage utilised." No. 6, "From two houses the drains are carried into a cesspool in an orchard some distance away." No. 8, "Earth-closets have replaced a cesspool near the house." No. 20, "The outside closets are pits, which are cleared at times; and there is an earth-closet for night use. A closet in the house communicates with the waste-pipe of bath, and the sewage therefrom is conducted to a tank 100 yards away, whence it flows down the hill in an open drain." No. 24, "There are cesspools which are occasionally cleared, and at times are troublesome." No. 27, "The closets are tanks, cleared out three times a year." No. 30, "There is a cesspool for the house closet, and earth closets outside the house," and so on. It may be noted that in No 18 the drainage is under the supervision of a sanitary inspector.

So far as can be judged the lavatory arrangements, the provision for cold and warm baths in the house, for swimming baths, sea or river, seems to be well attended to in these schools. Due regard is also paid to the point, which was specially inquired into, as to the use by each boy of separate towels, brushes, &c. In fact more attention is evidently paid to these important matters than used to be the case. Some of our correspondents make mention of gymnastics, &c., under this head, but this subject will fall better in the second part of this report, in connexion with the question of physical education and recreation.

Turning now to the cases of illness which have occurred in these schools, and especially epidemic diseases arising within the past five years, all but one give information. Eight reply that no cases of illness occur, one naïvely remarking that he never has occasion to send for a doctor, whose presence he seems to regard as quite superfluous. The diseases mentioned include ophthalmia in two schools, pneumonia in two, "congestion of the lungs" in two, peritonitis in one, rheumatic fever and erythema nodosum in one, and sore-throat in one. The contagious affections were often limited to one case, probably owing to prompt measures of isolation. In one school (No. 10) thirty boys

had mumps, and in another (No. 16) there were fifteen cases of measles. We learn that measles occurred in fifteen of the schools, scarlet fever in twelve (in one school there were fourteen cases, one of which was fatal), varicella in two, mumps in three, rötheln in three, whooping-cough in two, and typhoid fever in one.

The provisions for isolation of cases of illness may be summarised in relation to the number of pupils. In Division I. seven out of the eight schools have a detached building as a sanatorium or infirmary, and one often has in addition an additional house for fever cases. In the remaining school on this list a separate part of the house is used as a sanatorium. In Division II. (six schools) two have each a detached sanatorium, three have sick-rooms in a separate part of the schoolhouse, and in one temporary lodgings are found when an outbreak occurs. In Division III. seven of the sixteen schools have detached sanatoria; in six there are rooms separately reserved, and mostly in a distinct part of the house. In two it is doubtful what provision is made, and in one (No. 17) it is said that room would be found if an epidemic occurred. In Division IV. six have rooms set apart for sickness, and three have no means for isolation.

Lastly, in reference to the query whether a medical officer is attached to the school and pays visits systematically, or whether one is only called in on emergency, we find that even in the larger schools the former plan is not generally adopted, only five out of the whole number having arrangements whereby systematic visits are made. One of our correspondents remarks that an endeavour to arrange for such systematic visitation at a fixed stipend was declined by the medical man.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL INSPECTORS OF THE LOCAL GOVERNMENT BOARD.

Haverfordwest.—Dr. Parsons reports on the prevalence of typhoid fever in the borough of Haverfordwest, and the general sanitary condition of the borough. The population of the borough is estimated at under 7000, and in the autumn of 1880 there was a considerable prevalence of typhoid fever among them. During the five months, August to December, eighty-eight new cases of the disease came to the knowledge of the medical officer of health. The conditions determining the outbreak of the disease were not ascertained; but the malady being present, "opportunities," says Dr. Parsons, "for the dissemination of the infection by the sewage air and sewage-tainted water abound throughout the towns. Badly made and foul sewers, defective and untrapped house-drains, ill-contrived watercloscts, large privy middens, and other depositories of filth, poison the air in and around the dwelling houses. The public water-supply is, or has been till lately, liable to dangerous pollution, both at its source and in the course of its distribution, and has been shown, both by obvious characters and by the results of chemical analysis, to be seriously contaminated; and the shallow wells and other subsidiary sources are in no better case." Dr. Parsons concludes his report by formulating several obvious recommendations to the sanitary authority for the removal of the several evils here referred to.

Totnes (Urban and Rural).—This report, too, is from the pen of Dr. Parsons, and also deals with prevalence of typhoid fever in these districts. The report, as concerns the rural district, is occupied chiefly with accounts of groups of cases of the disease occurring in several parts of the district under the conditions, so familiarly known in rural life, of excremental pollution of air, soil, and water. In the urban district typhoid fever appears to be endemic. The disease here at certain times shows itself more prevalent than at others, and the attention of the Local Government Board was called to one of these greater prevalences in 1880. The conditions of the persistence of the fever in Totnes urban were substantially the same as were observed in the rural district, exaggerated in several respects by the closer packing of the houses and the people in the towns; but the quality of the water-supply does not appear to have contributed to this persistence, although some deficiency of supply, from preventing free flushing of drains and sewers, may have tended to this result. "In my opinion," says Dr. Parsons, "in the generality of cases the infection has probably been received through the medium of sewage-poisoned air. In many of the houses in which cases have occurred there have been opportunities for the entry of sewer air, such as in-door watercloscts with unventilated soil-pipes, defective drains running under the house, or untrapped or inefficiently trapped sinks in or near it. In other cases the effluvia from foul privies or watercloscts on neighbouring premises were complained of. In the low-lying streets called Warland there are, or were, old stagnant sewers, and the tide occasionally backs up the drains, and floods the houses. In other cases the infection may have been conveyed by polluted well water. I know of no facts to show that the quality of the public water-supply had any share in propagating the disease, though the insufficiency of the supply as regards quantity has, in all probability, tended largely to that result." A proper system of sewerage is now being carried out in Totnes, which will no doubt, when completed, exercise a most beneficial effect upon the health of the population, and do much to remedy the persistency of typhoid fever in the town.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Sunderland.—Dr. Yeld reports for 1880, among an estimated population of 116,730, a birth-rate of 37·4 per 1000 living, and a death-rate of 24·4. The mortality from "fever" in this borough has gradually diminished from a rate of 2·20 per 1000 living in 1871, to 0·35 in 1880. In 1879, indeed, the rate was still lower (0·22), owing to the small number (2) of deaths from typhus during the year. But in 1880 the deaths from this disease numbered 15; and 27 deaths occurred from typhoid, of which 10 took place in one district of the borough, "entirely due," Dr. Yeld thinks, to "the nature of the ground upon which the houses in that part of the borough have been built—the foundation of the houses being built upon colliery refuse principally." Scarlet fever, it appears, was epidemic throughout the year, and the borough does not seem at any time to have been free from the disease as far back as the records give any information on the subject. Last year the disease showed itself in a malignant form, and it was especially fatal between the ages of five and ten in children. In connexion with this subject it is interesting to note that 40 cases were admitted into the House of Recovery, an indication, we should hope, that the inhabitants are beginning to appreciate the value of isolation in hospital of this disease. It would be interesting to know Dr. Yeld's opinion of the causes which have led to Sunderland being, as it were, a permanent centre of the infection of scarlet fever, and of the practicability of eradicating this apparent permanency. Measles, since 1874, has apparently become endemic in the borough every other year. The Registrar-General has had occasion to direct particular attention to a rise in the percentage of uncertified deaths during a recent quarter in Sunderland. This is explained by Dr. Yeld to have arisen from a medical practitioner having left home for several weeks, deputing the charge of his practice to an unqualified assistant, whose certificates of death would not be received by the registrar. This is a new aspect of the evils arising from the use of unqualified assistants. An interesting illustration is afforded of the wanderings of infectious disease in a case of a sailor coming from America, contracting small-pox, probably in Antwerp, travelling thence to the Tyne, passing by rail from that river to Sunderland, and falling ill from the disease in that town. Examples are given in Dr. Yeld's report of the Town Council soliciting consultation with the members of the medical profession in Sunderland on matters affecting their interest. In this way the local practitioners were asked to confer with the Council on the notification of infectious diseases to the medical officer of health. Resolutions meeting the wishes of the Town Council were accepted, but proved futile from two or three members of the profession refusing to notify, and the Town Council has no choice now but to apply to Parliament for compulsory powers on the subject. The medical profession were also called together to confer with the Council on the question of infant mortality, and a suggestion that the medical officer of health should prepare for distribution in the borough a series of recommendations and suggestions as to the feeding of children was approved. A copy of these recommendations and suggestions is included in the report. This policy of calling together the members

of the profession of a locality to confer with the sanitary authority on questions of a medical nature particularly affecting them strikes us as admirable, and must largely contribute to the willing co-operation of the profession in the work of the authority and of its medical officer of health, to the great advantage of the local population.

Brownhills, Urban (Staffordshire).—Dr. Flinn reports a death-rate for 1880 of 19·7 per 1000 living (estimated population, 1871, over 10,000). The health of the district, he describes as on the whole satisfactory during the year. The mortality under one year of age constituted one-third of the total mortality, and under ten years more than one-half. Dr. Flinn attributes the large mortality among infants and young children to the want of proper feeding and attention during infancy. Mothers of the poorer classes, he states, commonly give their young infants solid or otherwise improper food, and this improper food is a most frequent cause of diarrhœa and other wasting diseases. The water-supply of the district, derived from wells, appears to be unsatisfactory; but a hope is expressed that it may be brought, at no distant time, within the range of the South Staffordshire Water-Company's service.

Hartlepool, West (Urban).—Dr. Gourley, in his report of this district for the month of May, gives the impression that the general sanitary administration of this district is by no means what it ought to be. He describes the insanitary conditions under which he found a series of cases of infectious diseases he was called upon to visit. One case reported is curious. A death from scarlet fever had occurred in a house used as both dwelling-house and pawn-office. The articles pawned consisted chiefly of wearing apparel and bedding, parcels of which were packed in every room, even in one occupied by another child lying ill from scarlet fever. The liability of dissemination of the disease by the pawned articles among their owners was obvious. The premises, moreover, were in a filthy state. Dr. Gourley advised the closure of the pawn-shop, and the disinfection of the several parcels of pawned goods by dry heat.

At a meeting of the Metropolitan Asylums Board on the 25th ult., it transpired that the vessels lent to the Board by the Admiralty for small-pox purposes were, after all, to be moored, not off Greenhithe, as we have previously reported, but off Deptford. The difficulties which the Board have experienced in obtaining a wharf on the Thames suitable for the embarkation of patients have at length been overcome. Sir Edward Currie moved the following resolution, which has been referred to the General Purposes Committee for consideration:—"That application be made to the Local Government Board to authorise the managers to purchase two sites in the north and south of the metropolis respectively, whereon to erect administrative blocks to form the nucleus of hospitals for the accommodation, in huts, tents, or otherwise, of convalescent patients in times of epidemics. That, upon the consent of the Local Government Board being obtained to this proposal, the General Purposes Committee be empowered to take such measures as may be necessary for giving effect thereto."

A reported death of a young child from vaccination at Plymouth has been going the round of the general press, apparently confirmed by the verdict of a coroner's jury. It would appear, however, from a statement made by the President of the Local Government Board in the House of Commons, that vaccination was not the cause of death, and that the jury returned a verdict of "Death from natural causes."

Mr. Wynter Blyth, in the number of his "Sanitary Chronicles" for St. Marylebone during the month of May, reports that the meteorology of the month was favourable to animal and vegetable life, that the mortality from various zymotic diseases in the parish was at the same rate as occurred in the corresponding month of the previous ten years, and that small-pox was distinctly on the decline.

Under the direction of the Port Sanitary Authority of the port of London, vaccination and revaccination of sailors and others employed within the limits of their jurisdiction have been actively pushed, free of cost, by their medical officer of health, Dr. William Collingridge.

Our contemporary the *Metropolitan* pertinently asks, "Is the Patent Destructor to become a recognised parochial institution?"

A female aged ninety-one years has been admitted into the Fulham Small-pox Hospital suffering from the disease.

It is reported that the Admiralty have issued an order, directing a special examination by the medical officers into the state of vaccination and revaccination of the officers and crews of the ships in the Royal Navy.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality showed a further decline last week, and was lower than in any previous week of this year. In twenty of the largest towns, estimated by the Registrar-General to contain in the middle of this year a population somewhat exceeding seven and a half millions, 5252 births and 2700 deaths were registered last week. The births exceeded by 66, whereas the deaths were no less than 557 below, the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had been equal to 18·7 and 19·5 in the two preceding weeks, declined last week to 18·5. The lowest rates in the twenty towns last week were 9·7 in Plymouth, 11·7 in Wolverhampton, 13·6 in Nottingham, and 14·3 in Sunderland. The rates in the other towns ranged upwards to 20·6 in Sheffield, 20·7 in Bradford, 21·3 in Norwich, and 23·6 in Liverpool. During the first twelve weeks of the current quarter the death-rates in the twenty towns averaged 20·6 per 1000, against 22·5, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 401 and 461 in the two preceding weeks, were 441 last week; these included 93 from small-pox, 91 from measles, 88 from whooping-cough, 73 from diarrhœa, 50 from scarlet fever, 23 from fever (principally enteric), and 23 from diphtheria. The annual death-rate from these zymotic diseases averaged 3·0 per 1000 in the twenty towns, and ranged from 0·0 in Plymouth and 0·5 in Brighton and Oldham, to 3·9 and 4·5 in London and Liverpool. The fatality of measles, scarlet fever, and whooping-cough has recently showed a general decline, and was last week considerably below the average for the season. The 23 deaths from diphtheria in the twenty towns corresponded with the number in the previous week, and included 14 in London and 6 in Portsmouth. The 73 fatal cases of diarrhœa showed but a slight further increase upon recent weekly numbers; they were proportionally more numerous in London than in the provincial towns. Small-pox caused 93 more deaths in London and its outer ring of suburban districts, 4 in Liverpool, and 1 in Bradford; no fatal case of this disease was recorded in any of the seventeen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined from 1644 to 1612 in the two preceding weeks, further fell to 1578 on Saturday last, of whom 531 were inmates of the Convalescent Camp Hospital at Darenth. The new cases of small-pox admitted to these hospitals, which had been 293 and 358 in the two previous weeks, were 321 last week. The St. Pancras Sanatorium at Finchley contained 42 small-pox patients on Saturday last. The number of patients in the Highgate Small-pox Hospital was 87 at the end of last week, 27 new cases having been admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had been 216 and 225 in the two preceding weeks, declined to 210 last week, but exceeded by 6 the corrected average number in the corresponding week of the last ten years; they included 108 from bronchitis and 75 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, did not exceed 2·9 per 1000 in London last week; the rate from the same disease was equal to 6·4 in Liverpool, and did not exceed 2·1 in Salford.

The causes of 64, or 2·4 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths in London did not exceed 1·4 per cent., whereas it averaged 3·4 in the nineteen provincial towns. No uncertified deaths were registered last week in Brighton, Plymouth, Wolverhampton, or Leicester; the proportions of such deaths were largest in Bristol, Newcastle-upon-Tyne, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The Registrar-General of Scotland has now revised his estimate of the present population of the eight large Scotch towns, dealt with in his Weekly Return, on the

basis of the numbers enumerated in April last. These numbers, although still subject to final revision, are sufficiently trustworthy for all practical purposes. This new estimate makes the aggregate population of the eight towns 1,206,023, and 111,014 less than the estimate hitherto used, which was based on the rate of increase that prevailed between 1861 and 1871. It appears that the estimates now discarded for more trustworthy ones very considerably overstated the population of Glasgow and Greenock, and to a smaller extent overstated that of Dundee and of Edinburgh; whereas the population both of Paisley and Perth was under-estimated. The estimates now adopted give greatly increased value to the mortality statistics of these towns. The annual death-rate in the eight towns, which had been equal to 20·5 and 23·6 per 1000 of the present population of the eight towns, declined last week to 19·6, but exceeded by 1·1 the average rate in the aggregate of the twenty large English towns. The rates in the eight Scotch towns ranged from 11·8 and 12·0 in Aberdeen and Greenock, to 26·2 and 30·7 in Leith and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which had been 65 and 84 in the two previous weeks, declined to 63 last week; they included 18 from diarrhœa, 11 from whooping-cough, 10 from measles, 10 from diphtheria, 9 from scarlet fever, 5 from "fever," and not one from small-pox. The annual death-rate from these zymotic diseases averaged 2·7 per 1000 in the eight towns, and was 0·3 below the average rate from the same diseases in the twenty English towns. This zymotic death-rate ranged in the eight Scotch towns from 0·0 and 0·5 in Greenock and Aberdeen, to 3·5 and 3·8 in Perth and Glasgow. The 18 fatal cases of diarrhœa in the eight towns showed a decline of 9 from the number in the previous week, but showed a proportional fatality very considerably in excess of that which prevailed in the twenty English towns. The 11 deaths from whooping-cough also showed a decline from recent weekly numbers, and included 5 in Edinburgh and 3 in Glasgow. Nine of the 10 deaths from measles, and 8 of the 10 from diphtheria, were returned in Glasgow. Of the 9 fatal cases of scarlet fever 5 occurred in Edinburgh and 4 in Glasgow. The deaths referred to "fever" (including typhus, enteric, and simple), which had been 11 and 13 in the two preceding weeks, declined to 5 last week, and included 4 in Glasgow and 1 in Edinburgh; they were equal to an average annual rate of 0·22 per 1000, against 0·16, the average rate from the same causes in the twenty English towns. The deaths attributed to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy) in the eight towns, which had been 95 and 110 in the two preceding weeks, further rose to 114 last week, and were equal to an annual rate of 4·9 per 1000, whereas the rate from the same diseases in London did not exceed 2·5.

HEALTH OF DUBLIN.

The rate of mortality in Dublin showed a slight further increase last week. The annual rate of mortality, calculated upon the population enumerated in April last, which had been equal to 21·0 and 24·3 in the two previous weeks, further rose last week to 24·5. During the past twelve weeks of the current quarter the death-rate in the city averaged no less than 26·2 per 1000, against 20·2 in London and 20·8 in Edinburgh. The 164 deaths in Dublin last week showed a further increase of 2 upon the number returned in the two previous weeks, and included 19, or nearly 12 per cent., that were referred to the principal zymotic diseases, against 11 and 13 in the two preceding weeks. These 19 deaths from zymotic diseases included 8 from fever (typhus, enteric, or simple), 6 from diarrhœa, 3 from whooping-cough, 1 each from measles and scarlet fever, and not one either from small-pox or diphtheria. The annual death-rate from these zymotic diseases was equal to 2·8 per 1000 in Dublin, while the rate from the same diseases was 3·9 in London and 3·2 in Edinburgh. The deaths referred to fever corresponded with the number in the previous week, and were equal to an annual rate more than seven times as high as the average rate from the same cause in the twenty large English towns. The 6 deaths from diarrhœa considerably exceeded the numbers in recent weeks, and showed a fatality largely in excess of that prevailing in the English towns. The deaths from whooping-cough were also more numerous than in recent weeks, while those from the other zymotic diseases were again but few. Infant mortality showed a marked further increase upon that recorded in recent weeks.

FATAL DIPHTHERIA IN PORTSMOUTH.

The epidemic of diphtheria in Portsmouth shows little sign of abatement, as no fewer than 43 fatal cases have been registered within the borough since the end of March last, against 6, 15, and 17 in the three preceding quarters. Thus during the past nine months 75 deaths have resulted from this disease, whereas the highest number returned in any year since 1870 was 24 in 1874. Bearing in mind the near approach of the holiday season at Southsea, it is difficult to suppress surprise at the apparent apathy with which this continuance of the epidemic is locally regarded. There would appear to have been no serious attempt to check the spread of infection or to trace its origin. We believe the local sanitary authority is supposed to possess hospital accommodation for the isolation and treatment of infectious diseases, but we have not heard of a single case of diphtheria having been treated in this hospital. If the new Medical Officer of Health for the borough has made any special report to the Town Council on this epidemic, such report, as far as we have been able to ascertain, has never yet been published. The severity of the present epidemic may be judged from the following figures. During the past twelve weeks the annual death-rate from diphtheria within the borough of Portsmouth has averaged 1·46 per 1000, exceeding by more than thirteen times the average rate from this disease in twenty of the largest English towns during the ten years 1871–80. The greatest fatality of diphtheria in Portsmouth has recently occurred in Kingston sub-district, where the death-rate has been equal to 2·43 per 1000; in Landport sub-district, however, which contains Southsea, the rate has averaged 1·28 per 1000. Six fatal cases were registered within the borough during each of the last two weeks.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE METHOD OF DEALING WITH TRADE REFUSE, HOUSE REFUSE, ETC., IN THE METROPOLIS.

The meeting of the Society of Medical Officers of Health on the 24th ult., Dr. Bristowe, the President, in the chair, was occupied with the consideration of a report by a committee of its members on the best method of dealing with the trade refuse, house refuse, and other waste matters of the metropolis. The committee entrusted with the preparation of the report consisted of Dr. Orme Dudfield, Mr. Wynter Blyth, Dr. Alfred Carpenter, Mr. Shirley F. Murphy, and Dr. Sedgwick Saunders. The subjects submitted for consideration to the committee were arranged under three heads. 1. The best and most convenient method of dealing with animal and vegetable trade refuse (e.g., from slaughter-houses, fishmongers', poulterers', greengrocers' shops, &c.), with a view to its collection, removal, and ultimate disposal, whether by utilisation or otherwise. 2. The collection and disposal of house refuse. 3. The collection and disposal of stable and cowshed refuse. With regard to the first subject the committee conclude that "in any case the refuse should be collected daily in the early morning hours, and conveyed in properly constructed covered receptacles or in vehicles expressly adapted for the prevention of effluvium nuisance. Failing an arrangement for utilisation, each district should provide the means of destroying animal refuse. It appears doubtful whether vegetable refuse could be profitably utilised in London by the process of 'carbonisation.' The mere destruction of such refuse by fire could be effected without difficulty or nuisance." With regard to the second subject, the committee observe "that the removal of house refuse ought not to depend upon its pecuniary value, but should be regarded from the sanitary rather than the commercial point of view, and they are of opinion that the time is at hand when the nuisance authority will have to adopt the process of refuse-destruction by fire, in specially constructed apparatus, such, for instance, as is in operation at many great provincial centres of population, as Birmingham, Leeds, Manchester, Warrington," &c. We are glad to note here that the meeting was wholly in favour of householders accumulating their house refuse in movable receptacles, and of a daily collection by the metropolitan nuisance authorities, after the fashion adopted in several towns in England. With regard to the third subject, the committee were of opinion that the nuisance authority "should have the same right everywhere as in the City of London to col-

lect [stable and cowshed refuse] when the owner is in default, and to charge him with the cost of so doing." The report was adopted unanimously by the meeting, and with the several conclusions we have little doubt that the medical profession throughout the metropolis will heartily agree, and be prepared to support the action of the medical officers of health, if such support can be useful. We are glad to find that the Society has taken up this question, which so clearly concerns the well-being and comfort of the inhabitants of London, and we venture to hope that the publication of this report will exercise no inconsiderable influence in bringing about the very important reforms in the sanitary administration of the metropolis to which it refers.

SCARLET FEVER CONVALESCENT HOME.

An important meeting has been held at the Mansion House, the Lord Mayor presiding, in furtherance of the movement to provide a convalescent home for scarlet fever in the metropolis. Among the gentlemen present were Sir J. Risdon Bennett, Sir Joseph Fayrer, and Dr. Andrew Clark. Sir Rutherford Alcock moved and the Earl of Aberdeen seconded the following resolution, which was adopted unanimously: "That in view of the great mortality from scarlet fever in the metropolis, and the spread of infection from patients in varying states of convalescence, especially among the working classes, where isolation from the healthy was impossible, the establishment of convalescent homes for such cases is of the greatest importance, as a means of checking the spread of infection, and as an aid to the more rapid recovery of the patients themselves; and the meeting pledges itself to promote the establishment of such homes." A committee was formed to carry out this object, the Lord Mayor accepting the presidency.

Manchester is to be envied for the series of health lectures for the people organised and sustained by the Manchester and Salford Sanitary Association. Three of these lectures, recently delivered, are now before us, and nothing could well be more admirable for the purpose they have in view. One of these lectures is on "Beverages, Water, Tea, Cocoa, &c.," by Dr. W. J. Sinclair; another is on "Clothing," by Dr. John Haddon; and the third is on "Sick Nursing amongst the Poor," by Mr. C. J. Cullingworth.

A special kind of fever is reported to have been lately prevalent in Yokohama. Dr. Beukema, of the Japanese Hospital, at Noge, is stated to be making inquiries as to the nature of the malady.

THE SERVICES.

Surgeon-Major Clifton has been ordered to Jersey for duty on return from the Transvaal. Dr. Clifton proceeded with the 14th King's Hussars from Bangalore to Natal for service against the Boers, and on the termination of hostilities embarked in charge of invalids for England.

Surgeon-Major Oliver Codrington, Army Medical Department, has been appointed to the medical charge of the Colaba Depôt and Sanatorium, Bombay.

Cholera has appeared in the 25th Regiment Bombay Native Infantry at Surat. A few cases are also reported at Thayetmyo, Burmah.

The transport *Thames* arrived at Portsmouth on the 23rd ult. from Natal, with 100 invalid and wounded soldiers from the field hospitals at Newcastle and Mount Prospect; Surgeon-Major A. H. Stokes, M.B., was in medical charge of the party.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major Michael Quinlan has been granted retired pay, with the honorary rank of Brigade-Surgeon.

INDIA OFFICE.—The Queen has approved the retirement from the service of Surgeon-Major John Barclay Scriven, of the Bengal Army.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of the 1st April, 1881, Surgeon Henry Mark Levinge, B.A., M.B., has been allowed to withdraw from Her Majesty's Naval Service, with a gratuity.

The following appointments have been made:—Staff-Surgeon Edward J. Butler, to the *Inflexible*; Staff-Surgeon Thomas Bolster, to the *Excellent*, vice Robt. W. Biddulph; Staff-Surgeon Edward J. Sharood, to the *Ganges*, vice P. Keelan; Staff-Surgeon Robert W. Biddulph, to the *Tyne*, vice T. Bolster. Surgeon Cecil Drake, to the *Inflexible*.

THE AMERICAN MEDICAL ASSOCIATION.

THIS Association held its thirty-second annual meeting at Richmond, Virginia, from May 3rd to 6th, under the Presidency of Professor J. T. Hodgen, of St. Louis, who delivered an eloquent opening address upon the progress of medicine and surgery. Other addresses delivered at the general meetings were by Dr. Hunter McGuire, of Richmond, on military surgery, in which he specially dwelt upon the fatality attending gunshot wounds of the peritoneum even without visceral injury; by Dr. Billings on the returns of the last census with especial reference to the mortality statistics, and the mode of death registration, which has been vastly improved; by Dr. Dudley Reynolds, of Kentucky, upon recent progress in laryngology, otology, and ophthalmology, a necessarily discursive address, in which tonsillotomy was deprecated, early puncture of the tympanic membrane in otitis media advocated, the importance of early correction of errors of refraction enforced, and attention drawn to the new mydriatic—hydrobromate of homatropia. In the business proceedings a committee was appointed to arrange for the publication of the transactions in a serial form; and a standing committee to inquire into atmospheric conditions and their relation to the prevalence of disease was established. It is proposed to undertake observations in a few of the more important climatic sanitary districts of the United States. The following amendment to the Code of Ethics was proposed:—To article 1 of paragraph 1 it was proposed to add, "and hence it is considered derogatory to the interests of the public and honour of the profession for any physician or teacher to aid, in any way, the medical teaching or graduation of persons, knowing them to be supporters, or intended practitioners, of some irregular and exclusive system of medicine." The consideration of this amendment was entered upon after a very narrow division—viz., 76 to 74 votes. The debate upon the proposal was renewed at the third general meeting, when the following was substituted, on the motion of Dr. Billings, and carried by a large majority:—"It is not in accord with the interests of the public, nor the honour of the profession, that any physician or medical teacher should examine or sign diplomas or certificates of proficiency for, or otherwise be especially concerned with, the graduation of persons whom they have good reason to believe intend to support and practise an exclusive or irregular system of medicine."

A report by a committee upon the social status of members of the medical staff of the army and navy, advising the adoption of resolutions to bring the matter before the notice of Government, was not followed by any action in the way suggested.

Dr. J. J. Woodward, of the United States Army, Washington, was nominated President of the Association for the ensuing year.

At the close of the meetings the members, to the number of 600, made an excursion by the Richmond and Alleghany Railway, being most liberally entertained by the Railway Company *en route*.

In the section of Practice of Medicine, Materia Medica, and Physiology, the subject of pneumonia was dealt with in three papers, and occupied two days' sessions. The first paper was by Dr. Wile, of Sandy Hook, Connecticut, advocating bloodletting as a therapeutic measure in pneumonia. He gave twelve cases of acute "catarrhal" (?) pneumonia so treated, all with recovery. His conclusions were opposed by Dr. Lynch, of Baltimore, who pointed out that the cases related were evidently croupous pneumonia, in which the tendency is to resolution, whether bleeding be adopted or not. Dr. Whittaker, of Cincinnati, protested against the revival of venesection, and held that modern pathology pointed to the view of pneumonia being an acute infectious disease. Dr. N. S. Davis, of Chicago, had met with the best results from bleeding in pneumonia. Dr. Octerlony, of Louisville, thought the author had not proved his position; and Dr. Claborne, of Virginia, considered a middle course the safest. Dr. Post, of New York, believed venesection to be useful in some cases. Dr. Coleman, of Vermont, said that though theoretically called for, it was seldom needed in practice, and Dr. Quimby, of Jersey City, had lost all the cases of pneumonia treated by stimulants, and prized venesection above all other agents. Dr. Whitney, of New York, on the other hand, had gradually abandoned venesection. Dr. Ballou, of

Rhode Island, had never regretted its use, but often the failure to use it; whilst Dr. North, of Iowa, had never bled a case of pneumonia, and never lost one. Dr. Gross, of Philadelphia, said the use of the lancet was advisable in the early stages of all acute inflammatory disease, and he felt perfectly secure in announcing to the world that bleeding, performed in time and on proper subjects, is the great remedy in all forms of acute pneumonia. He had witnessed so many hundreds of times the almost magical relief which followed phlebotomy, that he had some years ago devoted considerable attention to the subject of this lost art. Dr. Lester, of Washington, was surprised to see such strong advocacy of venesection in pneumonia, and Dr. Henry Martin, of Boston, thought that it should not be absolutely condemned, but only its indiscriminate use. In reply, Dr. Wile explained that he only meant to imply that in the cases in his practice bloodletting was the best mode of treatment.

On the following day the proceedings opened with two papers in support of the zymotic theory of pneumonia, one by Dr. King, of Washington, and the other by Dr. C. Dabney, the latter also dealing with the subject of treatment. Considerable difference of opinion was expressed. On the third day, Dr. Bulkley, of New York, read a paper upon the Importance of Diet and Hygiene in the Treatment of Eczema; and Dr. Whittaker, of Cincinnati, on the Treatment of Diphtheria, in which he recommended persulphate of iron as a topical application, believing that diphtheria is, in the first instance, essentially a local disease. Dr. Octerlony, of Louisville, contributed a paper on the Nature and Treatment of Dysentery. Dr. J. E. Dickinson endeavoured to prove that albuminuria was caused by iodide of potassium given in syphilis, but he met with little support. A paper by Dr. F. E. Stewart, of New York, on the Materia Medica of the Future, wherein he maintained that the physician should know all about the methods of manufacturing drugs, was followed by the adoption of this resolution, proposed by Dr. Dunster, of Michigan:—"*Resolved*, That the spirit of the code of ethics forbids physicians from prescribing medicines controlled by patents, copyrights, or trade-marks. This, however, shall except a patent upon a process of manufacture, or machinery, provided a patent be not established to prevent legitimate competition, and shall also except the use of a trade-mark to designate a brand of manufacture, provided that the article so marked be accompanied by working formula and by the technical scientific name, by which anyone can compete in manufacturing the same."

In the section of Surgery and Anatomy, Dr. Burchard read notes of a case of Ulceration of the Vermiform Appendix, successfully treated by abdominal section, a procedure he advocated in the earliest stages of all acute inflammatory affections of the cæcum. Dr. Goodwillie, of New York, read a paper on the Treatment of Arthritis of the Temporo-maxillary Articulation by specially devised apparatus for maintaining the joint at rest; and there was an elaborate communication on Traumatic Fever, septic and non-septic, by Dr. Waters, of Jersey City. Dr. Leale, of New York, read a paper on Labial Carbuncle.

In the section of Diseases of Children, the chief papers were, one by Dr. Bowditch on the Relations between Growth and Disease; and one by Dr. White, of Boston, on Some of the Causes of Infantile Eczema, and the Importance of Mechanical Restraint in its Treatment; by Dr. Nunn, of Savannah, on the Treatment of Diphtheria. Dr. Jacobi read his address, intended for the general meeting, before this section, embracing a review of the progress in knowledge of the acute contagious constitutional diseases (rubeola, scarlatina, variola, and typhoid fever), and the acute contagious infections of the mucous membranes, such as dysentery and diarrhœa.

There was also a section on ophthalmology, otology, and laryngology.

HUNTERIAN MUSEUM.—The annual exhibition of additions about to be made to the Museum of the Royal College of Surgeons will be on view in the Council room of the College from the 5th until the 13th instant inclusive, with the exception of the 7th instant, when the institution will be closed to all, except Fellows, attending the annual election into the Council.

AT the twenty-sixth annual festival of the Poplar Hospital for Accidents, held on the 23rd ult. at the Freemasons' Tavern, and presided over by Sir Fowell Buxton, subscriptions to the amount of £1600 were announced.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Lords on Monday the Lunacy Districts (Scotland) Bill was read a second time.—On Tuesday, in committee on the Veterinary Surgeons Bill, an amendment to reduce the period of practice that should qualify a man to exercise the profession of veterinary surgeon from five to three years was adopted. A proposal to exempt veterinary surgeons from serving on juries was rejected. The remaining clauses were agreed to, and the Bill was reported to the House.

In the House of Commons on Thursday, June 23rd, a petition with reference to the London water-supply was received from the National Health Society. The Coroners (Ireland) Bill passed through committee.

Militia Surgeons.

On Friday, Dr. Farquharson asked the Secretary of State for War whether it was his intention to grant compensation for loss of expectation of pension to those Militia surgeons who joined previous to Lord Panmure's Circular of 1854; and whether it was his intention to compensate Militia surgeons generally for the serious loss of income inflicted on them by recent changes, and in particular by the withdrawal of fees for the examination of recruits.—Mr. Childers in reply could only say that this question was fully considered and finally dealt with by his predecessor, Lord Cranbrook, some years ago; and he could not now undertake to re-open it.

Vaccination Penalties.

Mr. Burt, member for Morpeth, who was recently fined at Newcastle for non-vaccination of his child, gave notice of the following question for Friday next:—To ask the President of the Local Government Board if he will be good enough to state whether a person who has been once fined under Section 31 of the Vaccination Act of 1867 is liable to be again fined within twelve months under the same order; whether the magistrates have power to grant as many fresh orders as may be demanded by the local guardians; and whether there is any analogy in other statutes for a repetition of fines under the same magistrate's order, or for a repetition of identical orders for an identical purpose, such repetition of fines or orders not being specially provided for by the statute.

On Monday, a petition was presented from Kensington against granting a loan to the Metropolitan Board of Works, for the purpose of continuing legal proceedings in the Hampstead Hospital case. A return was presented of inspectors' reports showing the number of vivisection experiments in 1880.—The order for the second reading of the Medical Act (1858) Amendment Bill was discharged, and the Bill was withdrawn. The second reading of the Vivisection Abolition Bill was deferred to July 27th.—The Coroners (Ireland) Bill was read a third time, and passed.—Mr. W. Holms gave notice of a question for Thursday, as to the neglect of sanitary precautions for the accommodation of the 2nd West India Regiment at Cape Coast in March last.

Small-pox in the Metropolis.

Dr. Cameron complained that in consequence of the Government being about to take the private members' days for the Land Bill, he would be debarred from bringing forward his resolution with regard to the incapacity and lack of resource displayed by the Local Government Board in dealing with the small-pox epidemic in the metropolis. He therefore proposed to move the adjournment of the House, in order that he might at once refer to the subject. The Speaker ruled that the hon. member for Glasgow, having a notice on the paper, would not be in order in pursuing that course; and Dr. Cameron therefore announced his intention of removing his notice from the paper, and bringing it forward on a motion of adjournment on another occasion. Subsequently, on the removal of Dr. Cameron's resolution from the paper, it was adopted by Lord R. Churchill, who put it down as an amendment to Supply, in the following terms:—"That this House deplores the death and suffering caused by the epidemic of small-pox at present raging in London, and condemns the conduct of the Local Government Board in neglecting to provide sufficient supplies of lymph for vaccination, in refusing to supply lymph for revaccination, and in allowing months to pass without taking steps to secure adequate hospital accommodation for small-pox patients, thereby compelling hundreds of them to pass

through the disease in their houses, destitute of proper treatment, and sources of infection to thickly populated neighbourhoods." This action of the noble lord will therefore prevent Dr. Cameron from carrying out his intention.

Mr. Hopwood gave notice that on Friday he will move for a return of all streets, squares, courts, and other localities of London, also of pauper hospitals, in which deaths from small-pox took place from the 1st day of October, 1870, to the 31st day of December, 1871, with the numbers in each, and the ages at death; and a return of the classes of persons, or the parents of children, who died in London of small-pox from the 1st day of October, 1870, to the 31st day of December, 1871.

Irish Questions.

On Tuesday, a return was ordered, on the motion of Mr. A. Moore, of the number of patients tended in Irish workhouse infirmaries and fever hospitals during the past year, of the number of paid and pauper nurses, and the average number of lunatics and idiots in the workhouses. In reply to Mr. O'Shaughnessy, Mr. Forster stated that the city of Limerick had an adequate number of representatives on the Board of the County Lunatic Asylum. Mr. Corbet put a long series of questions with regard to a coroner's inquest at Baltinglass, county Wicklow; to which the Attorney-General for Ireland replied that he had made inquiry, and found there was nothing illegal in the proceedings.

The Alleged Death from Vaccination.

In reply to a question by Mr. P. A. Taylor, which appeared in last week's LANCET, Mr. Dodson stated that the child, Florence Woodley, who was said to have died at Plymouth from exhaustion, indirectly due to vaccination, was found to have died from natural causes; the jury did not ascribe the death to vaccination, and the medical man who gave evidence said vaccination had nothing whatever to do with it.

On Thursday, Mr. Dodson stated to Mr. Sclater-Booth, with regard to certain anomalies in the superannuation of Poor-law officers, that some amendment of the law was required. At present the matter was within the discretion of the guardians, and the Local Government Board could not interfere.

Replying to Mr. W. Holms, Mr. Childers referred that hon. gentleman to his answer on May 13th with regard to the sickness amongst the 2nd West India Regiment at Cape Coast, and declined to go again into the details.

"MISTAKING SMALL-POX FOR CHICKEN-POX."

To the Editor of THE LANCET.

SIR,—The notice in THE LANCET of the 18th inst., under the above heading, induces me to send you the following particulars of cases with remarks.

The theory of the incompatibility of two contagious diseases at the same time in the same person is no longer tenable. Dr. Murchison has recorded (in THE LANCET) a case of the co-existence of small-pox and scarlatina. Dr. Brown of Rochester records in THE LANCET a case of small-pox co-existing with measles and purpura. Virchow records instances similar to these. Typhus and typhoid may exist together in the same person; so, apparently, in accordance with evidence placing the question almost beyond doubt, may any two of the acute specific diseases.

Three instances of the co-existence of small-pox and chicken-pox, and these two diseases occurring in varying intensity in the three cases, and tending to a diminution of the small-pox and the persistency of the chicken-pox, and the ultimate communication of the chicken-pox to two other persons with an absence of small-pox in the two final cases, present features of disease at once curious, uncommon, and puzzling.

A boy in a school of 400 pupils developed a rash partly vesicular and partly papular. The vesicles were in shape, and every other particular, good examples of chicken-pox vesicles; they withered, scabbed, and peeled off, leaving no marks behind them; but the papules went on into pustules, and instead of drying up as the vesicles had, they sloughed out bodily, just as John Hunter says they should do when he asks, "What is the true characteristic of small-pox? That by which it differs from all other eruptions that we are acquainted with? The most certain character of the small-pox that I know is the formation of a slough, or a part becoming dead by the variolous inflammation."[1] What Hunter taught a century ago is not less true now. The only peculiar feature in this first case was that each pock was small but otherwise perfect. The vesicles were ovoid and might have been taken, had they existed alone, as typical examples of the vesicular tears of chicken-pox. In this case the vesicles were, numerically, about two-thirds, and the pustules one-third of the whole.

A second case arose in a boy who had been brought daily in close proximity to the first during the incubative stage of the first case; but it differed from the former inasmuch as the chicken-pox vesicles so preponderated that for a time I regarded it as pure chicken-pox, and isolated it as I had the other; but in time the characteristic sloughing of a few (only three well marked ones) doubtful pocks took, and the case was then placed in a ward with the first.

A third case arose in a boy who had occupied a room next to the first case during the incubative stage—(e.g., before any symptoms displayed themselves). Here, too, the same medley of rash developed, but in different proportions, for there were three-fifths of the pocks of modified small-pox and about a fifth of chicken-pox, and others that did not admit of being classed with one or the other.

All the cases at first isolated were, when defined, put together in the same ward. All communication with the remainder of the school was cut off, and no other cases arose there. The boys dispersed after a fortnight for the Easter holidays; but two cases of chicken-pox were reported to have occurred to two of the boys on their reaching home. I had no reason to doubt the accuracy of the diagnosis of the medical men who defined these cases, but taken in conjunction with the second case here reported, I thought they might fairly be regarded as offshoots of them; if so, they raise the question, Are small-pox and chicken-pox modifications of the same disease? That they may co-exist is beyond doubt; but are they mutually convertible?

I am, Sir, your obedient servant,

Wellington College, June 23rd, 1881. J. G. RADFORD.

Obituary.

THOMAS RADFORD, M.D. HEIDELBERG, F.R.C.P. EDIN.

DR. RADFORD, whose death at the age of eighty-eight we announced in our issue of the 4th ult., was the son of John Radford of Manchester, and was apprenticed to the late Mr. William Wood, in King-street, where subsequently he practised for many years. In 1839 he obtained the Heidelberg doctorate and the F.R.C.P. Edin., the English Surgical Fellowship being gained in 1852. He was elected a surgeon to the Manchester and Salford Lying-in Hospital in 1818; but it was with the St. Mary's Hospital for Women and Children, of which institution he was consulting physician, and with which he had maintained association for sixty-three years, that Dr. Radford's name and labours were chiefly connected. To this charity he not only devoted his honorary professional services, but gave valuable gifts. The Radford Library, presented by him, is one of the most complete of its kind in Europe; whilst the museum, which the hospital owes to his munificence, is largely resorted to as a means of study. Dr. Radford was a voluminous writer; on obstetrical topics for the most part, but also on other and cognate subjects. He married a daughter of the late Rev. John Newton, rector of Didsbury. One daughter only, who died young, was the fruit of the marriage. Dr. Radford has, we understand, left the sum of £3670 as a permanent endowment for the services of a medical man to attend to the poor resident in Hulme Field.

THOMAS STEPHENS, M.R.C.S. ENG., L.S.A., NORTH SHIELDS.

TYNEMOUTH men, looking at the above name, and perhaps inwardly giving a slightly familiar turn to the first portion of it, will be anxious to see that we do justice to all the virtues which it represents and has represented in North

[1] Vol. iv., p. 76, Palmer's Edition of Hunter's Works.

Shields any time within the memory of the oldest inhabitant. A man who was as old as the century is, who began practice when many leading hospital surgeons had no surgical qualifications, and yet possessed himself of a double qualification in the year 1827—not for hospital or legal purposes, but from his sense of the breadth of medical work,—and who during that time has been discharging arduously and with great acceptance the duties of a general practitioner and of an accomplished and useful citizen, is a man whose death even at fourscore seems premature, and whose sufficient monument will be in the gratitude of the community he served and in the history of its social, political, and scientific institutions.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the required examination and were admitted Licentiates in Dental Surgery at a meeting of the Board of Examiners on June 28th:—

Amoore, John Spencer, Balham.
Davis, Charles Daniel, M.R.C.S., Kilburn.
Ewbank, Francis, M.R.C.S., Queen Anne-street.
Harris, U. A. Carpenter, M.R.C.S., Brighton.
Hern, William, St. Mary's-square.
Matthews, William, Hereford-road.
Oakley, Archibald Harold, Tunbridge Wells.
Pidgeon, William John, Finsbury-park.
Price, Rees, Blythe-road.
Rose, Frederick, North-crescent.
Stack, Thomas James, Gower-street.
Tothill, Walter, North-crescent.
Truman, Charles Edwin, M.R.C.S., Southwick-crescent.
White, Henry Freeman, Hill-street.

The Library of the College will be closed on Thursday next, July 7th, for the purposes of the election of members of Council, and on Friday and Saturday, the 14th and 15th, for the College examinations.

UNIVERSITY OF CAMBRIDGE.—The following gentlemen have successfully passed the various examinations for the degree of M.B. during the Easter term:—

FIRST EXAMINATION.

FIRST CLASS.

Goodman, St. John's. | Nixon, G., Caius.
Maudsley, Christ's. | Percival, Trinity.

SECOND CLASS.

Barber, Caius.
Bell, Pembroke.
Brown, W. H., Caius.
Browning, Clare.
Bulstrode, Emmanuel.
Coombe, Caius.
Copeman, Corp. Christi.
Dutt, Corpus Christi.
Elkton, E. H., St. John's.
England, Caius.
Evelyn, Caius.
Facey, St. John's.
Fitzgerald, Caius.
Graham, W. P., Caius.
Harris, Christ's.
Haviland, Pembroke.
Holloway, Sidney.
Ingle.
Jones, Sidney.
Malden, Trinity.
M'Conkey, Caius.
Rowe, Pembroke.
Rutherford, Caius.
Shann, Downing.
Sibley, Pembroke.
Skelding, Caius.
Simpson, Caius.
Tebb, St. Peter's.
Walker, C. H., Jesus.
Yeoman, Pembroke.

SECOND EXAMINATION.

FIRST CLASS.

Knaggs, B.A., Caius.

SECOND CLASS.

Armstrong, B.A., Clare. | Manley, B.A., Emmanuel.
R. H. B. Bolton, B.A., Trin. | Roberts, B.A., Christ's.
C. E. H. Cotes, Caius. | F. C. Wallis, B.A., Caius.
Davies, B.A., Trinity. | Whittingdale, B.A., Caius.
Dowson, B.A., Christ's. | M. S. Wilson, B.A., Pembroke.

THIRD EXAMINATION. (PART I.)

FIRST CLASS.

Fuller, H. R., B.A., Caius.

SECOND CLASS.

Bagshaw, M.A., St. John's. | Marshall, B.A., Clare.
Birdwood, B.A., St. Peter's. | Tooth, M.A., St. John's.
Browne, G. A., M.A., Trinity. | Webber, B.A., Downing.
Howe, B.A., Clare.

THIRD EXAMINATION. (PART II.)

FIRST CLASS.

Coxwell, B.A., Christ's. | Mason, B.A., Pembroke.
Lepage, M.A., Magdalen. | Tooth, M.A., St. John's.

SECOND CLASS.

Birdwood, B.A., St. Peter's. | Wedmore, B.A., St. John's.
Standert, M.A., Corp. Christi.

UNIVERSITY OF DURHAM.—At the Final Examinations for the degrees in Medicine, concluded on June 24th, the following candidates satisfied the Examiners:—

DOCTOR IN MEDICINE (for Practitioners of Fifteen Years' standing).

Deane, Andrew, L.R.C.S., &c.
Leach, John Conyns, B.Sc. Lond., M.R.C.S., L.S.A.
Orton, Charles, M.R.C.P. Ed., M.R.C.S., L.S.A.
Reed, Thomas Sleeman, M.R.C.S., L.S.A.

DOCTOR IN MEDICINE.

Bowman, Hugh Torrington, M.B., M.S., M.R.C.S.
Dodd, John Richard, M.B., M.R.C.S.
Morton, Shadforth, M.B., M.R.C.S.
Powell, Soudamore Rydier, M.B., M.R.C.S.
Tyson, William Joseph, M.B., F.R.C.S. Eng., L.R.C.P.
Woodman, William Edwin, M.B., M.R.C.S., L.S.A.

BACHELOR IN MEDICINE.

Austen, Henry Hinds, M.R.C.S.
Baker, John Hopper.
Burton, Francis Henry Mercerou, M.R.C.S.
Clowes, Herbert Alfred, M.R.C.S.
Cripps, Charles Couper, M.R.C.S.
East, Frederick William, L.S.A.
Kempster, William Henry.
Kennedy, William Adam, L.R.C.P., M.R.C.S.
Prowde, Edwin Longstaff, M.A. Cantab.
Robinson, William.
Smith, William Harvey, M.R.C.S.
Thomson, George James Crawford.
Walker, Basil Woodd, L.R.C.P., M.R.C.S.

MASTER IN SURGERY.

Burton, Francis Henry Mercerou, M.R.C.S.
Clowes, Herbert Alfred, M.R.C.S.
Cripps, Charles Couper, M.R.C.S.
Robinson, William.

COLLEGE OF PHYSICIANS IN IRELAND.—At the June examinations, the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—Thomas Hobbs Crampton, Charles James Douglas, Robert James Fayle, Michael Edward Fitzgerald, Thomas Gerahty, Patrick Joseph Austin Kelly, Daniel Francis Butler Reardon, James Steel Swain.

MIDWIFERY.—Thomas Hobbs Crampton, Charles James Douglas, Michael Edward Fitzgerald, Thomas Nunan, Daniel Francis Butler Reardon, James Steel Swain.

The under-mentioned Licentiates have been admitted Members:—

Peter Aloysius Cutler, Alexander Samuel Faulkner, William Carroll, William Doyle.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The under-mentioned gentleman has been admitted a Fellow of the College:—

O'Connor, Francis William.

QUEEN'S UNIVERSITY IN IRELAND.—The following degrees and diplomas were conferred last week:—

DOCTOR IN MEDICINE.—Henry Harper, Walter C. Johnson, Samuel F. Longhead, Daniel Lynch, Joseph R. McDonnell, Jeremiah McKenna, James Minnioce, Gerald Mitchell, David T. Montcith, David J. O'Malley, George H. Powell, John Redmond, Archibald C. Robinson, Robert L. Rutherford, David M. Saunders, William D. Sexton, James Simpson, Henry Sinclair, John M. Trimble, Charles H. Wheeler.

MASTER IN SURGERY.—R. Alexander, J. Anderson, R. Campbell, W. N. Davies, J. Geraghty, E. Hogan, D. Lynch, J. McKenna, J. Minnioce, Gerald Mitchell, J. Mullin, J. F. L. Mullin, J. A. Oakshott, G. H. Powell, D. M. Saunders, Henry Sinclair, J. M. Trimble, Charles H. Wheeler, J. B. White, J. F. White.

DIPLOMA IN MIDWIFERY.—W. N. Davies, Daniel Lynch, Jeremiah McKenna, J. A. Oakshott, George H. Powell, John Redmond, David M. Saunders, Henry Sinclair, John M. Trimble, J. B. White.

THE services of a retriever appear to be systematically engaged in Glasgow to collect subscriptions for a local medical charity, and the success of the enterprise, in the accumulation of pence and half-pence, is reported to be by no means inconsiderable.

NEW scarlatina wards were formally opened at the Bradford Hospital on Tuesday last. Dr. Rix, the medical superintendent, took the opportunity of stating that in the event of an outbreak of small-pox, the hospital authorities would not be found unprepared, as they had provided accommodation for thirty-five cases.

A COTTAGE HOSPITAL has been opened at Llandudno. The medical men of the town have volunteered their services gratuitously. The Bishop of Bangor, who officiated at the opening ceremony, took advantage of the occasion to pass a high eulogy on the medical profession, the members of which, he said, "gave to the welfare of their fellow-men what was of far greater value than silver and gold."

AT the Surrey Sessions, on Tuesday, the salaries of the coroners were, on the recommendation of the Finance Committee, increased as follows:—Mr. Carter, to £1204, from £999; Mr. Hall, to £797, from £655; Mr. Payne, Southwark, to £140, from £128; and the same coroner, for the Duchy of Lancaster, to £27, from £24.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. The treasurer of the Hospital Sunday and Saturday Fund for the Manchester and Salford medical charities, has received, under the will of the late Mrs. Alice Aldred, of Levenshulme, £1265, which has been distributed amongst the various local hospitals and medical institutions. By the will of the late Mr. Alexander Brunner of Glasslaw, the Aberdeen Hospital for Sick Children has become entitled to an annuity of £100.

AT a meeting of the Liverpool Hospital Sunday Committee, on the 21st ult., it was agreed to distribute £9600 amongst the medical charities. The distribution will be on the same scale as last year, excepting that 2 per cent. is taken from the Ladies' Charity Hospital, which is temporarily closed, and given to the Woolton Convalescent Hospital, which is this year for the first time on the list.

ROYAL VISITS TO CHILDREN'S HOSPITALS.—On Sunday last, the Princess of Wales, accompanied by the Princesses Louise, Victoria, and Maud of Wales, visited the Hospital for Children with Hip Disease, 18, Queen-square, Bloomsbury. Their Royal Highnesses were conducted through the various wards of the hospital, and the Princess and the young Princesses went from bed to bed, speaking to each child, and distributing both fruit and flowers, which had been brought from Berkeley Chapel. Her Royal Highness on leaving expressed herself much pleased with the hospital, and gave permission that it should henceforth be known as the Alexandra Hospital for Hip Disease in Childhood. On the same day the Duchess of Teck, accompanied by the Duke of Teck and the young Prince and Princess, visited the Victoria Hospital for Children, Chelsea, bringing with them fruit and flowers from the service in Berkeley Chapel. It is needless to say that in both cases the little patients were highly pleased with the gifts as well as with the attention they received from the royal visitors.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ALLARD, J. H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Forthampton District of the Tewkesbury Union.

BARRETT, C., F.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Third District of the Bath Union.

BATTERBURY, R. L., M.B., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the Berkhamsted District and Workhouse of the Berkhamsted Union, and Public Vaccinator, vice A. Dennis, M.R.C.S.E., resigned.

BAYNES, Mr. J., jun., has been reappointed Public Analyst for the Borough of Kingston-upon-Hull for one year.

BENHAM, H. A., M.B., C.M., L.S.A.L., has been appointed Assistant Medical Officer to the Royal Lunatic Asylum, Dundee.

BORLAND, J., M.B., C.M., has been appointed Medical Officer for the St. Peter's West District of St. Mary's (Islington) Parish.

BRANFOOT, H. S., M.B., M.R.C.S.E., has been appointed Senior House-Surgeon to the Torbay Hospital and Provident Dispensary, vice Cumming, resigned.

CARSWELL, J., L.R.C.P.Ed., L.F.P.S.G., has been appointed Physician to Anderson's College Dispensary, Glasgow.

CHRISTIE, J. W. S., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Assistant Medical Officer to the Leavesden Asylum, Watford, vice Mercier, resigned.

HAYMAN, H., F.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Aylesbury Rural Sanitary District.

MASSEY, W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Castle Donington District of the Shardlow Union.

OLIVER, J., M.B., has been appointed House-Surgeon to the Durham County Hospital.

PAGE, F. M., L.R.C.P.Ed., has been appointed Medical Officer to the Wick Bridge Friendly Society, vice Ashley, deceased.

PAUL, F. T., F.R.C.S.E., L.R.C.P.L., has been appointed Honorary Surgeon to the Royal Southern Hospital, Liverpool.

SIMPSON, W. J. R., M.D., C.M., has been appointed Medical Officer of Health for Aberdeen.

THOMAS, R. W., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Bitton District of the Keynsham Union.

THOMPSON, T. W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the South Mims District of the Barnet Union vice Wookey, resigned.

WARREN, T., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Aylesbury Rural Sanitary District.

WINSLOW, H. F., M.D., M.R.C.P.L., M.R.C.S.E., has been appointed Honorary Physician to the Western General Dispensary, vice Prickett, resigned.

Births, Marriages, and Deaths.

BIRTHS.

CAPON.—On the 21st ult., at Edgware-road, W., the wife of Herbert J. Capon, M.D., L.R.C.P.L., &c., of a daughter.

FINZI.—On the 25th ult., at Sutherland-gardens, W., the wife of Dr. L. M. Finzi, M.R.C.S.E., L.R.C.P.L., of a son.

GUTHRIE.—On the 25th ult., at Ashley Lodge, Esher, the wife of J. Guthrie, M.D., of twin daughters.

HALL.—On the 28th ult., at 46, Queen Anne-street, the wife of F. de Havilland Hall, M.D., F.R.C.P., of a daughter.

LEE.—On the 27th ult., at The Elms, Heckmondwike, the wife of Francis Boynton Lee, F.R.C.P.Ed., of a daughter.

OWEN.—On the 21st ult., at The Hollies, Shore-road, Hackney, the wife of William Owen, M.R.C.S.E., of a son.

PARISH.—On the 22nd ult., at Steyne, Worthing, the wife of Frank Parish, M.R.C.S.E., L.R.C.P., of a daughter.

PHILLIPS.—On the 19th ult., at Woodville, New Ferry-park, Cheshire, the wife of Edward J. M. Phillips, M.R.C.S.E., L.D.S., of a daughter.

MARRIAGES.

COLT—NICHOLSON.—On the 27th ult., at St. Paul's Church, Southsea, by the Rev. E. H. Dutton Colt, B.A. (brother of the bridegroom), assisted by the Ven. Archdeacon Wright, the Rev. O. J. Vignoles, M.A., Vicar of Christ Church, Littlehampton, and the Clergy of St. Paul's Parish, Thomas Archer Colt, L.R.C.P., M.R.C.S.E., younger son of Thomas Archer Colt, Esq., of Maidencombe, Torquay, and grandson of the late Sir Edward Vaughan Colt, Bart., of Trowscoed, Radnor, to Mabel Aileen, second daughter of the Rev. Horatio Langrische Nicholson, D.D., Vicar of St. Paul's, Southsea.

EMERSON—AINSWORTH.—On the 22nd ult., at Rivington Church, by the Rev. T. Lowe, M.A., assisted by the Rev. W. Ritson, B.A., Peter Henry Emerson, Esq., M.R.C.S.E. &c., of Clare College, Cambridge, eldest son of the late H. E. Emerson, Esq., of the La Palma Estate, Sagua, Cuba, to Edith Amy, youngest daughter of the late J. Ainsworth, Esq., of The Thorns, Bolton-le-Moors. American, Cuban, and Colonial papers, please copy.

HARDIN—TERRY.—On the 21st ult., at St. Matthias Church, Richmond, Surrey, Walter Hardin, M.D., of Tonbridge, to Fanny, second daughter of the late Mr. Terry, of Richmond.

LOWE—COWPAR.—On the 24th ult., at St. Andrew's, Fifeshire, John Lowe, M.B., C.M., of Coupar Angus, to Annie Willie, daughter of the late James Cowpar, Esq., formerly Surgeon Madras Medical Service.

MACKINNON—MUNRO.—On the 18th ult., at St. Mary Abbott's, Kensington, Surgeon-Major Henry William Alexander Mackinnon, Army Medical Department, to Dora Jessie, second daughter of Surgeon-General W. Munro, C.B.

MATTHEWS—WATT.—On the 22nd ult., John Matthews, M.D., of Colebrooke-row, N., to Isabel Watt, of Austrey, Warwickshire.

NANKIVELL—POTTS.—On the 21st May, at the Residency, Butterworth, South Africa, John Howard Nankivell, District Surgeon of the Transkei, third son of John H. Nankivell, Esq., of York, to Minnie, daughter of the Rev. Henry J. Potts, of Llangarron, Herefordshire.

SLOGGETT—BOYSON.—On the 25th ult., at St. John's Church, Oxford-square, by the Rev. C. Sloggett, Rector of Chiddingfold, assisted by the Rev. Sir Emilius Bayley, Bart., Vicar, and the Rev. H. M. Croping, Arthur T. Sloggett, Esq., Surgeon, Army Medical Department, to Helen Sophia, youngest daughter of John Boyson, Esq., of Inverness-terrace, Hyde-park.

DEATHS.

ATKYNS.—On the 26th ult., Alfred Atkyns, L.R.C.P.E., of New North-road, London, N., in his 68th year.

DAVIES.—On the 27th ult., at Yorktown, Surrey, William Davies, M.R.C.S.E., L.S.A.L., aged 75.

FOLKARD.—On the 23rd ult., at Blenheim-crescent, Bayswater, Dr. Henry Folkard, M.R.C.P.L., M.R.C.S.E., L.S.A.L., A.K.C., aged 55.

GRAY.—At Dunbar, N.B., John Gray, Fleet-Surgeon, Royal Navy, aged 60. Friends will please accept this, the only intimation.

MURDOCH.—On the 13th ult., at Pembroke-road, Dublin, Sidney Murdoch, L.K.Q.C.P.I., aged 41.

OSBORNE.—On the 5th May, at Echuca, Victoria, Australia, James Osborne, M.R.C.S.E., L.R.C.P.L., L.S.A.L. (second son of J. H. Osborne, of Southwell, Notts), aged 24.

STEVENTON.—On the 8th ult., at Oporto, William Steventon, M.D. (late of Kingston, Jamaica), aged 52.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths*

BOOKS ETC. RECEIVED.

BAILLIÈRE, J. B., ET FILS, Paris.
Manuel Pratique des Maladies des Femmes, Médecine et Chirurgie. Par le Dr. G. Eustache. pp. 748.

BATSFORD, B. T., London.
Charitable and Parochial Establishments. By H. Saxon Snell, F.R.I.B.A. Profusely Illustrated.

BERMINGHAM & Co., New York.
The Principles of Myodynamics. By J. S. Wight, M.D. pp. 102. With Diagrams.

BOGUE, DAVID, London.
How to make the best of Life. By J. Mortimer Granville, M.D. pp. 96. 1s.

CHURCHILL, J. & A., London.
The Hunterian Oration delivered at the Royal College of Surgeons of England. By Luther Holden. pp. 47.
The Student's Guide to the Practice of Medicine. By M. Charteris, M.D. Third Edition. pp. 361. Illustrated.
On Cancer, its Allies, and other Tumours, with special Reference to their Medical and Surgical Treatment. pp. 311. With Microscopical Illustrations.
A Guide to the Use of the Laryngoscope in General Practice. By Gordon Holmes, L.R.C.P.Ed. pp. 65. Illustrated.

KIMPTON, H., London.
Chemical Vade-Mecum, for the Use of Students. By George Jones, F.C.S. pp. 87.

LEWIS, H. K., London.
A Practical Treatise on the Medical and Surgical Uses of Electricity. By G. M. Beard, A.M., M.D., and A. D. Rockwell, A.M., M.D. Third Edition. pp. 758. With nearly 200 Illustrations.

LONGMANS, GREEN, & Co., London.
Studies of Modern Mind and Character at several European Epochs. By John Wilson. pp. 444.
A Dictionary of Chemistry and the Allied Branches of other Sciences. By Henry Watts, B.A., F.R.S., F.C.S., assisted by eminent Contributors. Third Supplement, Part II.

PICKERING & Co., London.
Rheumatism, its Nature, its Pathology, and its Successful Treatment. By T. J. Maclagan, M.D. pp. 333.

RENSHAW, H., London.
The Anatomist, being a Complete Description of the Anatomy of the Human Body. By M. W. Hilles. Second Edition, improved and enlarged by the addition of 171 Wood Engravings. pp. 360.

RIDGWAY, W., London.
Thoughts on the Source of Life. By an Octogenarian. pp. 17.

SMITH, ELDER, & Co., London.
On the Digestive Ferments and the Preparation and Use of Artificially-digested Food. By Wm. Roberts, M.D., F.R.S. Second Edition, Revised, with Additions. pp. 74.

WILLIAMS & NORGATE, London.
Zeitschrift für Biologie. Von M. v. Pettenkofer und C. Voit. Band XVII., Heft 1.
Experimentelle und Kritische Untersuchungen zur Electrotherapie des Gehirns. Von Dr. L. Löwenfeld.

Transference of Special Sense; by Dr. J. G. Davey.—A Review of the Facts and Records in connexion with Kitchen-boiler Explosions and Hot-water Boiler Explosions of 1881; Second Edition; by S. B. Goslin.—Ventnor and its peculiar Advantages for the Invalid; by Dr. W. T. Parker.—Guide to Trefriw and the Vale of Conway Spa; by Dr. J. W. Hayward.—The Irish Land Bill; by the Author of "What Science is saying about Ireland."—Die Krankheiten der Frauen aerzten und Studirenden Gescheldert; von Dr. Heinrich Fritsch; mit 159 Abbildungen in Holzschnitt (Wreden, Braunschweig).—Fourth Annual Report of the Board of Health of the State of New Jersey, 1880.—On the Early Diagnosis of some Organic Diseases of the Nervous System; by Dr. E. C. Seguin.—Human and Animal Variolæ—a Study in Comparative Pathology; by George Fleming, F.R.V.C.S. (Baillière, Tindall, & Cox.)—Hydatid Disease of the Liver; by M. Balding, M.D. Cantab.—Simple Methods to Stanch Accidental Hæmorrhage; by Dr. E. Borck.—Terme di Porto d'Ischia Analisi Qualitativa e Quantitativa del Prof. Silvestro Zinno.—Ueber Husten; von Dr. Oskar Beschorner.—Das Gehen des Menschen in Gesunden und Kranken Zuständen, nach selbstregistrirenden Methoden dargestellt von Dr. Herman Vierordt; mit 11 Tafeln. (H. Laupp'sche Buchhandlung, Tabingen.)—Clinical Illustrations of Favus, and its Treatment by a New Method of Depilation; by Dr. L. D. Bulkley. (Putnam's Sons, New York.)—Practical Biopathy; by Ed. Haughton, M.D. (Wade, London.)—Medical Investigations in Life Assurance. (New York.)—On the Relative Merits of the Treatment of Uterine Myoma by Enucleation, Hysterotomy, and Ovariotomy; by Lawson Tait, F.R.C.S.—On Ophthalmia Neonatorum; by Dr. A. Emrys-Jones.—Colour-blindness; by Dr. Joy Jeffries.—A Winter in Madeira; by Henry Gordon Lennox, M.P.—Glasgow to the Highlands. (Macbrayne, Glasgow.)—The Swamps and the Yellow Fever; by Dr. M. da Gama Lobo (New York).—Revue Militaire de Médecine et de Chirurgie.—Medical Societies, their Organisation and the Nature of their Work; by J. C. Warren, M.D.—Fraser's Magazine, July.—First Annual Report of the Board of State Viticultural Commissioners.—Our Times, July. (Newman & Co.)—Hardwicke's Science Gossip, July.—On Vaccination; by J. W. Miller, M.D.—Friendly Greetings, July.—Good Words, July.—Sunday at Home, July.—Leisure Hour, July.—The Girl's Own Paper, July.—The Origin of the Volunteer Movement of 1852; by Geo. Pycroft. (Hamilton, Adams, & Co.)

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, June 30th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radiation in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
June 24	30·23	S.	64	56	105	76	53	..	Hazy
,, 25	30·01	W.	62	57	98	67	52	..	Cloudy
,, 26	30·26	W.	60	58	111	76	49	..	Cloudy
,, 27	30·00	W.	60	55	76	63	54	..	Overcast
,, 28	30·10	N.	61	54	94	69	50	..	Bright
,, 29	30·22	W.	62	54	109	74	52	..	Bright
,, 30	30·32	W.	63	56	110	75	51	..	Bright

Medical Diary for the ensuing Week.

Monday, July 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

Tuesday, July 5.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, July 6.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Mr. Heath, Dr. Godson, and others.—Mr. Braithwaite, "Non-capsulated Fibroids resembling Retained Placenta."—Dr. Galabin, "On a Case of Cancer of Cervix, followed by Septicæmia, with symptoms resembling Diphtheria."—Dr. Godson, "On four Cases of Spasmodic Dysmenorrhœa with Sterility, successfully treated by Dilatation."
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8½ P.M. Annual General Meeting for Electing Officers and Council and receiving Treasurer's Report.—Mr. J. E. Adams, "On Endocarditis, with Embolic Panophthalmitis."—Drs. Brailey and Edmunds, "On Certain Ocular Changes in Bright's Disease and Similar Changes from Local Causes."—Mr. Snell, "Homeralopia, with Patches on Conjunctiva."—Mr. Spencer Watson, "On Intraocular Tumour, ending fatally six years after Excision of the Eye."—Mr. Nettleship and Dr. Edmunds, "On Central Amblyopia in Diabetes; Microscopical Examination."—Mr. Nettleship and Dr. Fox, "Sequel to a Case of Multiple Growths on Irides."—Dr. Knaggs (by Mr. Swanzy), "On a Case of Vaccinal Ophthalmia."—Living Specimens and Card Specimens at 8 o'clock:—Mr. Brudenell Carter: Result of Optic Neuritis from Injury to Head. Mr. McHardy: Case of Persistent Hyaloid Artery. Mr. Mules: (1) Specimens of Disease of the Vitreous; (2) New Instruments.

Thursday, July 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

Friday, July 8.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 9.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

"PROPOSED NORTH METROPOLITAN HOSPITAL."

DR. G. W. POTTER, in reference to the annotation which appeared in our last issue on this subject, after some general remarks, writes as follows:—

"You say that the onus of proof of the need for a new hospital rests with those who have started the scheme. I accept the challenge, and I am happy to be able to furnish proof of the clearest and most convincing character. Some few weeks ago there were issued to the members of the Metropolitan Counties Branch of the British Medical Association copies of a memorial which it was proposed to present to the Home Secretary, praying that a Royal Commission be appointed to inquire into the 'working and deficiencies of the English hospital system.' With the preparation of this memorial the committee of the proposed hospital was in no way associated, either individually or collectively. The memorial was prepared by a subcommittee of the Metropolitan Counties Branch of the British Medical Association, with Mr. Timothy Holmes for its chairman, and 'with the co-operation and assistance of gentlemen engaged in the administration of the principal metropolitan hospitals.' The memorial lays down a series of conclusions as the result of the labours of the subcommittee, the second of which reads thus: 'That in the metropolis especially the hospital accommodation is imperfectly distributed, and in many districts altogether inadequate.' Concerning this proposition the subcommittee proceed to say, 'a glance at the accompanying map, in which the hospitals are marked in colours, will show that nearly three-fourths of the beds in the London hospitals are situated within an area of one and a half miles from Charing-cross—viz., 3511 beds out of a total of 4631 for the whole metropolis are situated in this narrow area. In the City of London, with a population of 51,000, there is hospital accommodation of one bed to every seventy-five inhabitants; in North London one bed to every 33,000. . . . . These figures demonstrate' (to continue the quotation) 'that for North London there is no adequate hospital accommodation.'

"At an adjourned meeting of the Metropolitan Counties Branch of the Association, held at the rooms of the Medical Society of London, 11, Chandos-street, Cavendish-square, on June 10th, 1881, Dr. Habershon presiding, the report of the subcommittee was read and discussed, the following gentlemen taking part in the discussion:—Mr. T. Holmes, Surgeon-General C. A. Gordon, C.B., Dr. Bristowe, Dr. Cholmeley, Mr. Ernest Hart, Dr. Poore, Mr. H. C. Burdett, Dr. Heywood Smith, Dr. Gilbart Smith, Dr. Hare, Mr. James Hogg, Dr. A. P. Stewart, and Mr. A. P. Gould. A motion was carried authorising the president to make the necessary arrangements for a deputation to the Home Secretary.

"If such a subcommittee as this, with Mr. Holmes for its chairman, and with the concurrence of the Metropolitan Counties Branch of the British Medical Association, has decided that its 'figures demonstrate that for North London there is no adequate hospital accommodation,' I for one need no other proof, neither I think does THE LANCET.

"The facts which I have stated cannot be denied, and as arguments they cannot be refuted. The hospital destitution of North London, and indeed the whole question of hospital accommodation in the metropolis, lie before you as in birdseye view. Examine them with candour, and you cannot but be convinced."

A Governor of St. George's Hospital is thanked for directing our attention again to the interesting statistics of the report of St. George's Hospital. We referred to the following statement:—"The number of out-patients, including 443 lying-in women, delivered at their own homes, was 15,095, a decrease of 142 on those of last year." The sentence marked by our correspondent seems to show a larger rate of decrease in the two years, but it is very deficient in clearness.

Dr. Thin.—The note of Dr. Monson was published in our columns on January 1st of the present year.

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE following were the questions on Anatomy and Physiology and Surgery and Pathology submitted to the candidates at the examination for the diploma in Dental Surgery of the College on the 24th ult., when they were required to answer at least one of the two questions both on Anatomy and Physiology, and on Surgery and Pathology, from 2 to 4 o'clock:—

Anatomy and Physiology.

1. Describe the course and distribution of the arteries and nerves which supply the teeth.

2. What are the changes which the food undergoes in the mouth and stomach?

Surgery and Pathology.

1. Describe the causes, symptoms, and appropriate treatment of ununited fracture of the lower jaw.

2. What is meant by "abscess of the antrum?" How does it differ from common abscess, such as occurs in the cellular tissue? Give its symptoms, and the treatment which is generally adopted.

ANTISEPTIC TREATMENT OF SMALL-POX.

To the Editor of THE LANCET.

SIR,—Permit me to suggest that small-pox should be treated antiseptically in the patient's body as well as outside it. Carbolic acid might be given during invasion and early advance; benzoic acid or benzoate of soda in view of maturation later. This, of course, would only be used as an adjuvant to remedies which remove waste or diminish temperature. The rationale is obvious.

I am, Sir, your obedient servant,

June 20th, 1881. A. D. MACDONALD, M.B.

COW-POX IN VACCINATED CHILD SUCKLED BY REVACCINATED MOTHER.

To the Editor of THE LANCET.

SIR,—A child, aged twelve months, that I vaccinated about nine months ago, and that has two good vaccine cicatrices on its arm, is suffering from cow-pox, the explanation of which I think is to be found in the condition of its mother, whom I revaccinated successfully from her son, aged fifteen years, and in the condition of the child, which is fed from its mother's breast. The eruption is confined to the back and face, and chiefly on the forehead in the latter situation. It has aborted in several of its stages in different parts, thus on the forehead it is mainly papular, while on the back it is vesicular. It is very itchy, and the child has scratched several of the vesicles. Independent of this, there is an inflamed base round the vesicles, which does not feel hard, but the vesicles themselves have a solid feel. At the date I write encrustation has taken place, the scabs being hard, with depression in centre, and not at all granular. There is small-pox in this parish, one woman having died of it, and I have sent an older sister of this family with modified small-pox out to hospital in the field. There has been no fever in this infant; it has enjoyed the best of health, according to the mother's statement; and the grafting of cow-pox from mother to child is best explained by the former's revaccination, which the child has absorbed with the milk. The vaccine vesicle in the mother, reappearing in its original phase (cow-pox) in the child, is very interesting and suggestive, which others may speculate on *ad libitum*. I would just remark that the reproduction of modified small-pox (*alias* cow-pox) by means of vaccination through a circuitous channel is not desirable on a large scale. The absence of fever in this infant I would ascribe to its previous good vaccination. Put by the side of this case another one of recent date, in which the same effects are not produced by the same causes. I revaccinated a woman from her infant, which she was suckling. By an inverse rule, the mother might now be supposed to have cow-pox from the vaccinated infant she was suckling, but instead of that there was only the vaccination with its local and constitutional signs. There was a back current, as it were, in the suction of the child, which withdrew so much of the vaccination back into its own system, and without any skin eruption as the result, because its own vaccination had not subsided. Take one more case, which the narration of the foregoing has recalled to my memory. A few weeks ago I thought it prudent to revaccinate a woman *enceinte* who had asked me to attend her. The revaccination was successful, and on the ninth day labour came on, and the woman was delivered of a fine spotless child. Where was the cow-pox? Clearly it could not be inherited in nine days. Is it still quiescent in the infant, ready to break out when it is vaccinated, or will it negative vaccination? The non-appearance or non-transmission of cow-pox in this instance may be ascribed to the fact that the child was unborn, and had made no struggle for its own existence. Its mouth was shut, and it had no mammary gland to hang on by, and drink in the "perilous (?) stuff" as an anti-vaccinationist might call it.

The above will show how comparatively unequal the mammary gland and placenta are in their power to circulate the vaccine virus. They are more equal in their power to diffuse an hereditary virus—e.g., syphilis. The fact of the child being a mere appanage of its mother in utero, called into being without any reciprocity on its part, is sufficient explanation of the cow-pox being one-sided. The child when born is an exhausting pump, and enables us to see small-pox through the reflecting mirror of its own body, *alias* "through a glass darkly."

I am, Sir, your obedient servant,

East Ilsley, Berks, June 21st, 1881. R. G. M'CALMAN, M.D., C.M.

MEDICAL PRACTICE IN CHINA.

A CORRESPONDENT of the *North China Daily Mail*, signing himself "M.D., L.S.A.," writes to that journal to warn medical men against being misled by advertisements in "local papers," announcing eligible opportunities for practice in China. The writer gives a lugubrious description of the disappointment which attended his practical response to an advertisement, which ran as follows:—"Wanted, a medical practitioner for a coast port, where a pushing man could make a large income, a portion of which can be guaranteed if necessary." He found the locality a very Chunzlewit's Eden, and the practice fully occupied, as he declares are nearly all the "openings" which are dangled before the eyes of those seeking professional employment in that part of the world.

SANITARY CONDITION OF THE ISLE OF WIGHT.

To the Editor of THE LANCET.

SIR,—I am directed by the Local Board of Health of West Cowes to forward you the enclosed letter, with a request that you will be kind enough to insert it in THE LANCET of Saturday next.

I am, Sir, yours faithfully,
June 22nd, 1881. H. J. DAMAND, Clerk.

SIR,—The attention of this Board has been called to an article in THE LANCET of the 4th of June containing extracts from Dr. Ballard's report on the sanitary condition of the Isle of Wight and your remarks thereon, reflecting strongly on the sanitary administration of West Cowes, which has led us to call on our medical officer, Dr. William Hoffmeister, formally to report to us what has been the sanitary condition of West Cowes during upwards of a year past, and extending to the present time. He reports as follows:—

"With regard to the water-supply, it is most excellent in quality and ample in quantity, and I have never yet been able to trace a case of typhoid fever to any pollution of water, although the supply is at times intermittent. I have analysed the water in the wells of the two principal hotels referred to by Dr. Ballard in his report, and which he says may be regarded as suspicious, and I find the water from both these wells to be of excellent quality, and fit for all domestic purposes. I have much satisfaction in stating that I never knew West Cowes healthier than at the present time, and I may say it has been so for some time past.

"I am not aware of the existence of any case of infectious or contagious disease at the present time. During the first four months of this year there have been 31 deaths in the district, which comprises a population of 6320, showing a death-rate under 15 per 1000 only, and of these not a single death from enteric or other fever, small-pox, scarlatina, measles, whooping-cough, or diphtheria.

"I impute to a great extent the improved sanitary condition of the town to the action of the Local Authority, having been recently more energetically exercised in suppressing all nuisances likely to cause disease.

"In 1879 there were 6 deaths from enteric fever, but in 1880 there were only 2, and one of these was clearly imported, and in 1881 to the present time only 1. The reduction with regard to cases of enteric fever among paupers is still more marked, for while in 1879 there were 8 cases of enteric fever and 11 of a doubtful character, during 1880 there was but 1 such case and 4 of a doubtful character, and during 1881 to the present time there has been but 1 case."

We think this must be considered as showing that the sanitary state of the district at the present time is very good indeed. It appears to us worthy of remark that of the 31 deaths before referred to, 6 were between 60 and 70, 4 between 70 and 80, 7 between 80 and 90, 1 between 90 and 100, 5 under 1 year, and 2 under 5. It might be assumed from what appeared in your article that the Local Board had been torpid and regardless of improving the sanitary condition of the district, the fact, however, being that they have expended nearly £30,000 in works of sewerage and obtaining an efficient water-supply under most difficult circumstances, all which works have been submitted to the Local Government Board before being executed, and examined and approved by their inspectors.—I am, Sir, your obedient servant,

June 22nd, 1881. GEORGE SPARKS,
Chairman of the Local Board of Health for the District of West Cowes.

CHRYSOPHANIC ACID IN PSORIASIS.

To the Editor of THE LANCET.

SIR,—With reference to the cases of Professor Charteris, treated unilaterally by the inunction of chrysophanic acid, one of your correspondents has suggested that, as the non-treated side was carefully wrapped up in cotton-wool, the perspiration, being enclosed, might cause a cure of the part.

Dr. Charteris, in a case the treatment of which I have had the opportunity of observing from its commencement, left the non-treated side quite free, and carefully wrapped up the side on which he applied the acid. Now, Sir, the result of this test has been quite as marked as in the former cases, the disease being cured in eleven days on both sides of the body. This method of application does very well, as it effectually keeps the bedclothes &c. clean, and untainted by the acid. The only symptoms in this case were slight sickness and vomiting at first.

This case seems quite conclusively to prove the constitutional action of chrysophanic acid in psoriasis; indeed, there is no other way of explaining the facts which have been observed in the various cases which I have brought before your notice now and at a former time.

I am, Sir, yours, &c.,
June 22nd, 1881. STUDENT OF MATERIA MEDICA,
Glasgow University.

Assistant.—The question is one either of law or of considerate behaviour. In the absence of a specific contract it seems to be the latter. It, therefore, does not admit of any definite answer, but must be left to our correspondent's sense of what is right. A month's notice would appear to be right.

Dr. Wood.—The larger fee seems small enough. The matter ought to be arranged between the two medical attendants. The school authorities cannot be blamed for preferring the lower fees, but they should not have the authority of a medical man for thinking them sufficient.

HYPODERMIC INJECTION OF MORPHIA.

To the Editor of THE LANCET.

SIR,—In your issue of to-day I observe I state the dose of bimeconate of morphia injection is 1-60 of a grain. This is a mistake, the amount injected being one-third of a grain. Correction in your next issue will oblige yours truly, QUINTON M'LENNAN, M.B.

Glasgow Royal Infirmary, June 25th, 1881.

WANTED, A DIAGNOSIS.

To the Editor of THE LANCET.

SIR,—I should feel obliged if any of your readers would kindly give their opinion of the following:—A lady, aged seventy-five years, has for the last year taken thirty grains of chloral hydrate every night. For a week or two she has been troubled with aphthous ulcers about the lips, gums, and on the point of the tongue. Her sister has also, under medical advice, taken chloral for a long time, and who warned her that it would cause a soreness of the mouth. I saw the patient to-day for the first time, and am therefore unable to give the results of treatment, but she says some ulcers have healed and others have come. She has used an infusion of tea as a wash. Is the ulceration due to the persistent use of chloral?

I am, Sir, yours, &c.,
Jersey, June 7th, 1881. M.D.

Expectans.—Taylor, Christison, Guy, and Husband.

Madeira.—An examination has to be passed. The laws are the same as in Portugal, to which country Madeira belongs. Our correspondent will find particulars in Hardwicke's Book on Medical Education and Practice.

M.D.—The author of the article referred to will, if applied to, no doubt supply the information desired.

An Admirer.—1. No.—2. We believe the information to be incorrect.

NURSING INSTITUTIONS.

To the Editor of THE LANCET.

SIR,—The old days of "Sairey Gamp" are over, and we are apt now to imagine that a nurse sent from any of our central institutions is truly skilled, and that we may safely entrust any of our patients to her care during our absence. This may be right in many cases; but having lately had my eyes opened rather widely to the ignorance of two so-called "skilled nurses," coming from a well-known institution, in future I shall look upon the whole body with a little more suspicion. I was attending an old lady suffering from congestion of the lungs, and for domestic and other reasons found it necessary to send for a nurse. On her arrival I entrusted her with a clinical thermometer and chart, as she stated that she was accustomed to taking temperatures, and requested her to mark down the "degree" every night at a certain time. Next morning, on paying my visit, I found the chart unmarked, and on asking the nurse what the temperature had been was told "97°." I said nothing at the time, as I knew if I explained the character of her answer and told her what the temperature was expected to be (about 101°) I should have the same state of things night after night. I allowed this to pass therefore, telling her to take it again the next evening. On the following morning the same answer was given, and on my suggesting an error was told that she had made a mistake in her answer, as the temperature was really lower the second evening—viz., 97·1°(!) This, of course, showed me that she knew nothing about the matter at all; and on my accusing her of her ignorance she confessed that she had never taken a temperature before! So much for our skilled nurses. Again, lately in seeing a surgical case for a medical friend I found the nurse talking learnedly about the "rectrum," and introducing her great knowledge of pathology by stating that "bedsores were formed from within the body." The sudden dismissal of this nurse showed up a dreadful state of things—cruelty to the patient, great powers of alcoholic suction, unlimited capacity for lying (in bed and out of it), strange ideas as to the non-necessity of trying to do anything to keep life in a case apparently hopeless, and many other little traits in her character which ought to have prevented her remaining so long in the institution from which she came, and to which she had belonged for some time. I have had many good nurses from these places, but I have lost my confidence in them now, and accept their statements *cum grano salis*, and never allow the patient to be left in their care for any length of time alone. The directors of the nursing institutions ought to be more careful in their selections; and if they are not they must not expect to be supported by the profession as they have been.

I am, Sir, yours faithfully,
June 25th, 1881. A. G. B

CERTIFICATES OF DEATH.

A Member of the College of Nineteen Years' Standing.—There is no legal impediment to a registered medical practitioner giving a certificate of the cause of death of a patient in cases in which the certifying practitioner has only been called in a few hours before death. The only necessary conditions in order to give a medical certificate of cause of death, in strict accordance with the Births and Deaths' Registration Act (1874), are that the practitioner be registered, and that he should have been in attendance during the last illness of the deceased. In the case referred to by our correspondent the action of the practitioner who gave the certificate appears, however, to have been somewhat wanting in courtesy towards the previous medical attendant.

Mr. F. Porter Smith.—We shall be happy to receive the paper.

THE HEADS OF THE PEOPLE.

To the Editor of THE LANCET.

SIR,—Over forty years' practical experience at each branch of my trade warrants my confirming the fact that peoples' heads generally are smaller than they were. In the years of my apprenticeship—1842 to 1849—I worked frequently on 7⅛, 7⅛, and up to 8-inch hats.

A six-dozen stock ticket would run thus:—

2	6	18	18	18	6	4	2
6⅞	6⅞	6⅞	7	7⅛	7⅛	7⅛	7⅛

A six-dozen stock ticket of to-day would run thus:—

2	4	9	18	18	12	6	2	1
6⅜	6⅜	6⅜	6⅜	6⅜	7	7⅛	7⅛	7⅜

My father used to say the Spitalfields weavers of fifty years since had the smallest heads in his experience. My present experience is that stablemen, coachmen, grooms, and helpers have the smallest heads.

I am, Sir, yours obediently,

St. George's-place, Hyde-park-corner, S.W., ROBERT HEATH.
June 23rd, 1881.

To the Editor of THE LANCET.

SIR,—As a contribution to the facts of the case, permit me to mention that I have been informed by a Dublin hatter that the heads of the people in that city are the smallest in Ireland, and that those of the Belfast and Cork people are the largest. According to the theory of Mr. Collins, the inhabitants of the capital are the least intelligent in the country, whilst those of the Australian savages and Japanese Ainos (being very much larger than those of any European nation) ought to be indicative of very great "power of brain," &c.

Byron's brain was stated to be heavy, but his cap (now in Meyer's Museum) will only fit a small head; whilst Scott's head, though really large, required a small hat from its peculiar shape. As for Campbell, Southey, Locke, Pope, and Newton, I am afraid they are "nowhere" in your correspondent's estimation. The present fashion of "front hair" amongst the ladies appears to be a reaction against popular physiology, and going back to Virgil's "Lydia, remarkable for her low forehead."

I am, Sir, your obedient servant,

June 27th, 1881. E. H.

To the Editor of THE LANCET.

SIR,—In THE LANCET of June 18th you had a letter about the size of heads as tested by hats. The largest head in London was Smith O'Brien, 7¾ inches; next to him E. B. Webb, engineer, Great George-street (now dead). Thirty years since people wore soft hats, and often pulled them over their ears; now they wear a hard hat on the top of the head. Boys used to be told to tuck their ears under their hats.

I am, Sir, yours truly,

Fenchurch-street, London, E.C., THOS. CHRISTY.
June 22nd, 1881.

CROWNER'S QUEST LAW.

To the Editor of THE LANCET.

SIR,—On Thursday last, June 9th, I was called by the police to see the dead body of a newly-born infant, which had been found in a ditch. I gave it as my opinion that the child had been dead about a fortnight, and directed that the coroner should be at once informed. This was done, and nothing further was heard until yesterday morning, June 14th, when the coroner (Mr. Payne) wrote, saying that "as the child had been dead a fortnight it must be very much decomposed, and, under the circumstances, it was unnecessary to hold an inquest."

I am, Sir, your obedient servant,

Chase-side, Southgate, N., June 15th, 1881. R. T. VIVIAN.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. F. Moor, Ryde; Dr. M'Calman, East Ilsley; Dr. Alford, London; Mr. T. Bryant, London; Mr. Porter Smith, Shepton Mallet; Mr. O'Connor, Limerick; Dr. Crane, London; Mr. T. F. H. Smith, London; Dr. J. C. Steele, London; Dr. Mann, Manchester; Mr. Judge, London; Dr. Ogston, Aberdeen; Dr. Latham, Cambridge; Mr. Plowright, King's Lynn; Dr. Woland, Lindsey, O.; Mr. Jeaffreson, Framlingham; Dr. Potter, London; Professor Buchanan, Glasgow; Dr. D. Nelson, Birmingham Dr. Orchard, Kingassie; Mr. Vachell, London; Mr. Dolan, Halifax; Mr. Lithgow, London; Dr. Mackintosh, Scarborough; Surgeon-Major Cody, Bombay; Mr. Berridge, Red-hill; Mr. Walford, King's Lynn; Mr. Canty, Liverpool; Mr. Pollard, Exeter; Dr. Armstrong, Newcastle-on-Tyne; Dr. Crocker, London; Dr. W. Wilson, Pendleton; Dr. Lee, Heckmondwike; Messrs. Heaton and Son, Burslem; Mr. Bartlan, Broseley; Mr. G. B. Browne, London; Mrs. Surr, St. Anne's-on-the-Sea; Dr. Fly Smith, London; Mr. Lunne, Worcester; Mr. Yeoman, Sheffield; Mrs. Goff, Birkenhead; Mr. Rossitorne, Constantinople; Mr. Heath, London; Dr. Thin, London; Mr. Naish, Ashley Down; Mr. Pattullo, Glasgow; Mr. Kingdon, London; Mr. Colston, New Whittington; Mr. T. Bird, London; Edwards and Son, London; Mr. J. E. Dyer, Pretoria; Dr. Hubbard, London; Dr. Fussell, Brighton; Surgeon-Major Adsetts; Mr. F. E. Jones; W. Thomas; The Director-General of the Naval Medical Department; Expectans; An Admirer; A. G. B.; A Surgeon; E. H.; Madeira; Constipation; 420; F. R.; X. Y., Edinburgh; Miles, Peckham; P.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Miller, Haydock; Mr. Liddiard; Dr. Harvey, Worksworth; Mr. W. Cox; Dr. Dickson, Buxton; Dr. Berdoe, Hackney; Mrs. Berry, Liverpool; Mr. J. A. White, London; Mr. Mattox, Colchester; Mr. Fraser, Kilsyth; Mr. Kerslake, Chesterfield; Mr. Case, Bromyard; Mrs. Ross, Twickenham; Dr. Maxwell, Woolwich; Mr. Mason, New York; Mr. Greaves, Hackney; Mr. Smith, Greenwich; Miss E. Brown, London; Dr. MacCastle, Carrignavar; Mr. Howes; Mr. Hammerton, Barnsbury; Mr. Pollard, Bayswater; Dr. Bindley, London; Miss Hopton, Newton-le-Willows; Mr. Dalvinge, Edinburgh; Mr. Wallis, Manchester; Dr. A. B. Squire, London; Dr. Jones, Cork; Mr. Willey, Birmingham; Mr. Maclehose, Glasgow; Mr. Building, London; Mr. Jennings, Coleford; Sigma, New-cross; S. P.; Talmud, York; Delta, Cubitt-town; W. B. C.; R.; Surgeon; Assistant; Medicus, Bristol; E., Southend; Alpha, Birmingham; Delta; K. C., Whitstable; M. B. C., Selby; Medicus, Mold; J. S.; Medicus, Godalming; Surgeon, Hanley; H., Bristol; G. N. R., Easingwold; Semper Fidelis; J. J., Edinburgh; Statim, Manchester; &c., &c.

Asylum Journal (Berbice), Le Pilote, Gaceta Cientifica de Venezuela, Western Morning News, Philadelphia Trade Journal, Ipswich Journal, North China Daily Mail, Littlehampton and Arundel News, Evening Express, London Advertiser, North Star, Bradford Observer, Belfast News Letter, &c., have been received.

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Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Sons' Railway Bookstalls throughout the United Kingdom, and all other Advertising Agents.

Tables of Contents, with the Index of Advertisements, for each Number can be had on application to the Publisher.

Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.